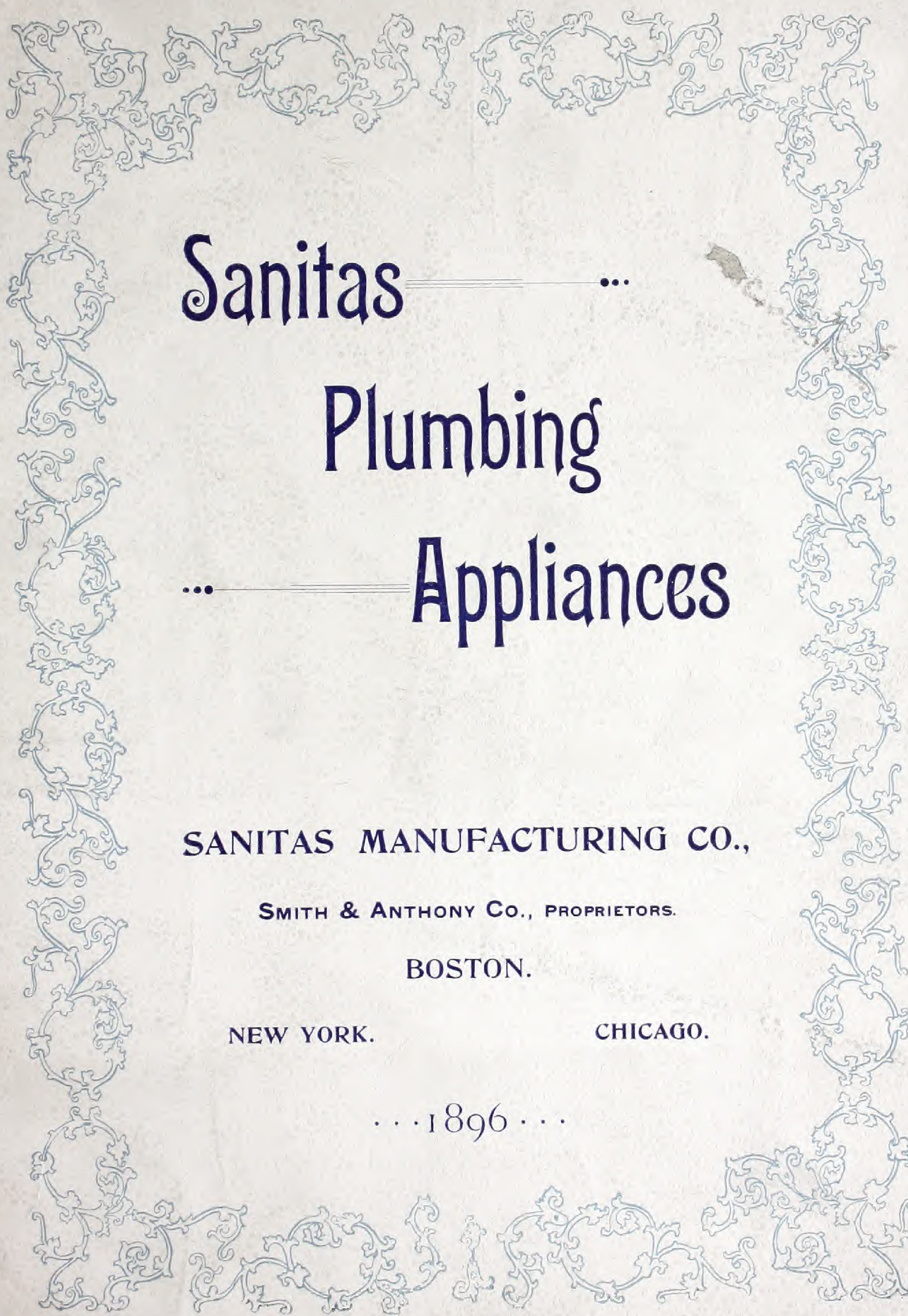


596.1 Sanitas

A decorative border of repeating floral and scrollwork motifs surrounds the central text.

# Sanitas — ... Plumbing ... — Appliances

**SANITAS MANUFACTURING CO.,**

**SMITH & ANTHONY CO., PROPRIETORS.**

**BOSTON.**

**NEW YORK.**

**CHICAGO.**

... 1896 ...





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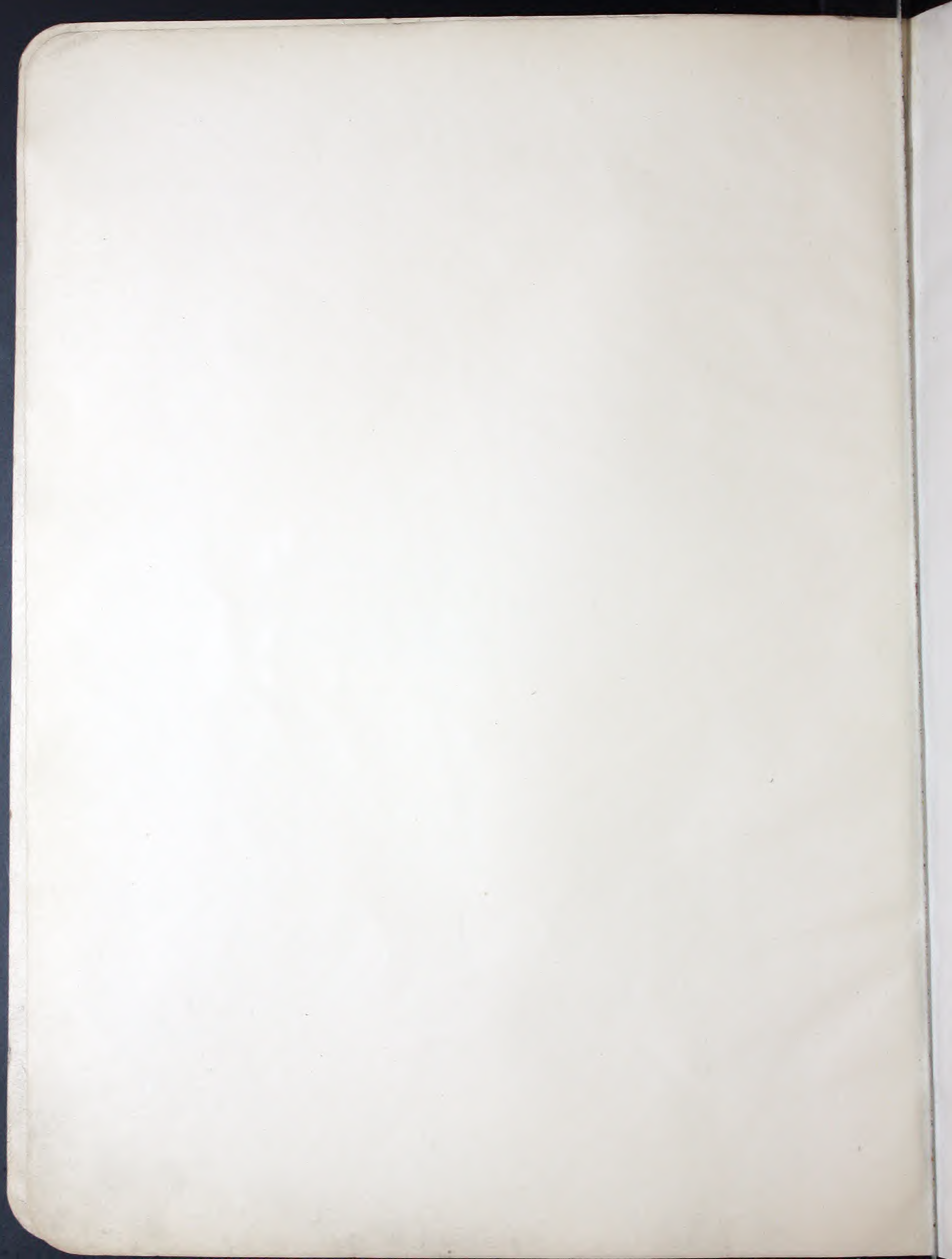
Class..... Book..... Accession.....

From *Sanitar Mfg Co*  
REFERENCE, 29 5 96











# CATALOGUE "C"

1896

Sanitas

Plumbing

Appliances

MANUFACTURED BY

**SANITAS MANUFACTURING CO.**

SMITH & ANTHONY CO., Proprietors,

48 TO 54 UNION STREET, BOSTON, MASS.

56 Beekman St., New York.

217 Lake St., Chicago, Ill.



# The Sanitas Plumbing Appliances

Consist of an improved line of patented Closets, Lavatories, Traps, Bath Tubs, Sinks, and other Plumbing Requisites, constructed on scientific principles, and at the same time having the equally important feature of extreme simplicity. They represent the highest attainments reached in plumbing, and are in accord with the most advanced professional opinions.

• • • • •

The important desideratum in any plumbing system is the rapid and thorough removal of household wastes. Next in importance is the use of fixtures which will oppose a complete barrier to the escape of any noxious odors or gases into the house.

• • • • •

Sewer gas is the result of a foul condition of the pipes, caused by the sluggish passage of waste matters through them. By the use of the Sanitas System of Plumbing, the pipes are filled full bore, and effectually scoured at each discharge.

• • • • •

The maximum of sanitary protection is further guaranteed by the use of the SANITAS TRAP, which retains its seal against siphonage, back pressure, evaporation, and all other adverse forces which may occur in any good modern plumbing work.

• • • • •

In addition to these purely sanitary features, the ideal plumbing fixtures should possess attractiveness of design and be reasonable in cost, two features happily combined in the Sanitas Appliances. As the Closets and Traps do not require venting, a large percentage of the cost of labor and piping of the ordinary system of plumbing may be saved, and far greater security attained.

---

**SANITAS MANUFACTURING COMPANY,**

**BOSTON.**

**NEW YORK.**

**CHICAGO.**



## Special Features <sup>of</sup> the Sanitas Appliances.

• • • • •

**1st. THE SANITAS JET CLOSET.** It is the quietest in action of any closet made, being practically noiseless. This result is accomplished by having a **Suspended Column of Water in the Standpipe**, making the action instantaneous and deadening the sound. By this construction the water seal in the closet trap is automatically maintained, and the objectionable noise of a body of water suddenly falling from the tank to the closet is entirely avoided. **The Sanitas is the only closet on the market having this feature.**

• • • • •

**2d. THE SANITAS BASIN** does away with the troublesome plug and chain, and the foul, concealed overflow pipe, by having a patented recessed outlet fitted with Waste and Lift. The Basin empties itself in a few seconds, thoroughly scouring the Trap and Pipes. The Standpipe is easily detachable from the basin for cleansing. The outlet to the Basin is as large or larger than the Waste Pipe. A single motion of the Lift opens or shuts the outlet. This fixture is also used on Baths.

This device, when used in combination with the Sanitas Trap, not only keeps the pipes thoroughly flushed, but is perfect security against the entrance of sewer gas.

• • • • •

**3d. THE SANITAS TRAP** is the ideal protection against siphonage, back pressure or evaporation.

It requires no venting, but when desired can be vented like the ordinary traps. When used unvented it offers greater security than any ordinary vented trap, as shown by our detailed descriptions and the statements of sanitary experts. It has been the subject of repeated competitive tests, and in every instance has demonstrated its resistance to siphonage. Its use in the Masonic Temple and Schiller Opera House in Chicago, two of the tallest structures in the country, is a guarantee of its ability to resist the severest siphonage. In addition to its simplicity and safety, it is also the most economical to use.

Sanitary engineers will appreciate the fact that the Sanitas Trap is free from all obstructions to waterways, such as gates, valves or balls, **and it has no working parts to get out of order or become befouled.** Not requiring any vent pipe, the loss of seal by evaporation, so fatal to the ordinary trap, is practically out of the question in the Sanitas Trap.

• • • • •

**4th. THE SANITAS KITCHEN SINK** successfully solves the problem of kitchen and pantry waste water. It has a grease trap and flush pot combined, acting automatically by discharging a large body of water through the pipes and effectually scouring them.

SEE FURTHER DESCRIPTION ON FOLLOWING PAGES.



# The Principle <sup>of</sup> the Sanitas Water Closet.

• • • • •

The requisites for a water-closet are: (1) **simplicity**, (2) **quickness and thoroughness of flushing**, (3) **freedom from all unscoured parts**, (4) **economy in construction and water consumption**, (5) **compactness and convenience of form**, (6) **amplitude of standing water in the bowl**, (7) **accessibility and visibility of all parts, including trap**, (8) **smoothness of material**, (9) **strength and durability of construction**, (10) **facility and reliability in jointing**, (11) **security against evaporation and siphonage**, (12) **ease and convenience of flushing**, (13) **noiselessness in operation**, and (14) **neatness of appearance**. The following is the inventor's explanation of the scientific principle of the Sanitas Closet:—



Fig. 1.  
Inverted Bottle.

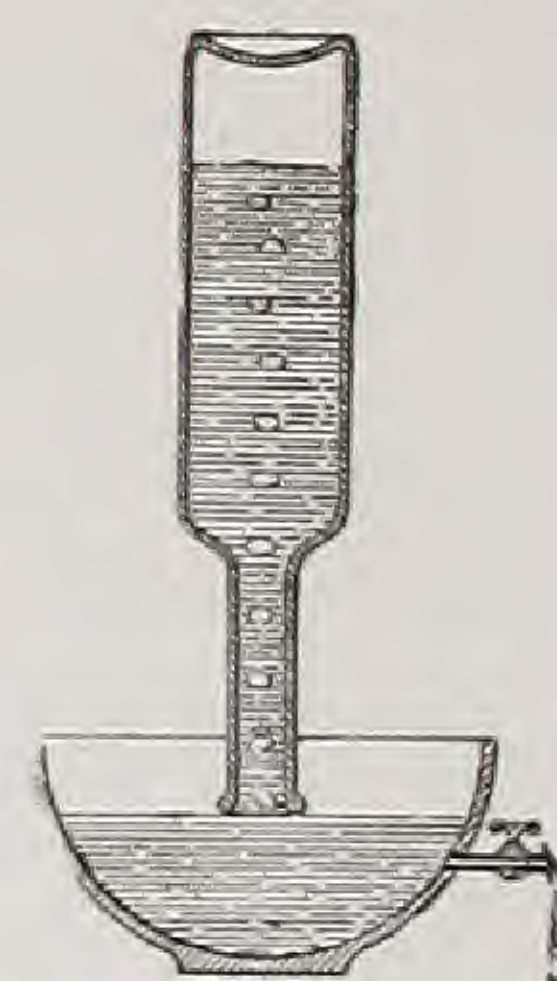


Fig. 2.  
Water exhausted from the Bowl.

surface of that in the basin. Let now this surface be lowered by any cause, and we shall find that it will be instantly restored from the bottle as soon as it sinks below its mouth, as shown in Fig. 2.

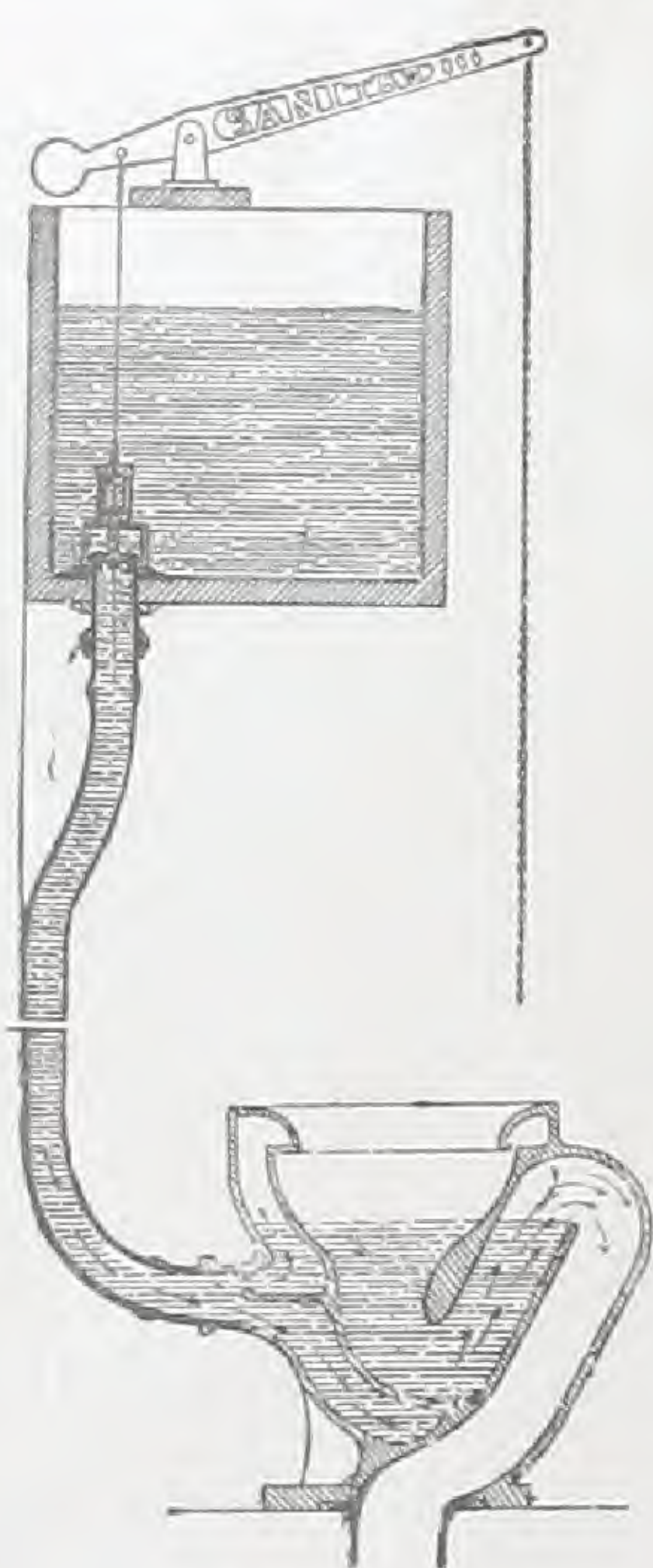


Fig. 3.  
Diagram illustrating the Principle  
of the Sanitas Water-Closet,  
but not showing its actual  
construction.

“In the effort to obtain a water-closet which should fulfil all of the above-mentioned requirements, the writer has made use of a principle of hydraulics new in the practice of plumbing, namely: that of supporting a water column by atmospheric pressure acting only at its lower end. The principle is explained by the simple laboratory experiment of the inverted bottle in the basin of water (Fig. 1). If an ordinary bottle be filled with water and inverted in such a manner that its mouth shall be immersed below the surface of water in a basin below, the water in the bottle will be supported by atmospheric pressure acting on the

“We have applied this principle to water-closet construction in the manner illustrated in Fig. 3. The water-closet represents our basin, and its supply-pipe our inverted bottle, which is closed at its top by the cistern-valve. If water is exhausted from the closet bowl by evaporation, siphonage, or any other cause, a fresh supply descends automatically from the pipe as soon as the surface sinks below its mouth. Inasmuch as in the construction of the closet, this mouth is placed above the bottom of the water-seal, it is evident that water will instantly descend from the pipe before the seal can be broken. This seal is four inches deep, and the mouth of the pipe is midway between the top and bottom of the seal, or, in other words, two inches below the normal level of the standing water in the bowl.

“The cut on page 6 represents the actual construction of the closet.

“The action of the apparatus is as follows:—

“The cistern-valve being raised, the balance of atmospheric pressure is restored, the water column in the pipe instantly begins to move, and, since it connects with the water in the closet below its level, it acts noiselessly and effects a thorough flushing.

In considering the Sanitas Regal Closet in detail we find it conforms to the ideal of sanitary excellence in the following particulars:—

“1. **Simplicity.** We find here the simplest form possible with closets. The trap and the bowl are one and the same thing. Each forms half of the other. The flushing is accomplished by the pressure of the water only, and without machinery of any kind in the closet. We have, in fact, the simplicity of the short hopper, which is the simplest form of water-closet known.

“2. **Quickness and thoroughness of flushing.** The maximum of rapidity of flushing is attained by having the supply-pipe always full of water, so that the action at the lower end takes place simultaneously with the lifting of the valve, and all delay and loss of power occasioned by the water falling from the cistern through the pipe and against the resistance of the enclosed air is avoided. The combined action of the two lower jets of water is, moreover, as already described, such as to accomplish the removal of the waste matters with the utmost speed, in virtue of their co-operation.



"The **thoroughness** of the flushing or cleansing action, with a given quantity of water, is evidently in direct proportion to the rapidity and direction of the action, it being assumed that the surfaces to be flushed are properly constructed to receive it, as is the case with the closet under consideration. The form and volume of the standing water in the bowl is such as to protect the sides from being fouled by adhesive matters. The solid and heavy wastes, which are the adhesive ones, cannot fall against these sides. If liquid or semi-liquid matters are projected against them they will not stick. Therefore these sides require not so much great **force**, as a **uniform distribution** of the flushing water. The parts which require scouring force are those below and beyond, including the trap and the main soil and drain pipes: and it is these parts which in this closet receive it. The scouring action on the pipes is here equal to that of the plunger closet, while it is free from the siphoning action on fixtures below of the latter; for air freely follows the discharge and prevents the formation of a vacuum.

"3. **Freedom from all unscoured parts.** The closet contains no cesspool in its construction, and has the minimum extent of surface, interior and exterior, possible in a water-closet.

"4. **Economy in construction and water consumption.** Being constructed of a single piece of earthenware of compact and simple form, this desideratum is met. The consumption of water is reduced to a minimum, in the manner already explained. No loss of power is sustained in the supply pipe, and each drop in the closet acts in the most effective manner, in concert with the rest, to produce a rapid and thorough flush.

"5. **Compactness and convenience of form.** The closet occupies the minimum of space, as may be seen from the perspective drawing. The outlet is under the centre, which facilitates its setting.

"6. **Amplitude of standing water in the bowl.** The standing water has the proper form and depth, and its surface is calculated to stand at the most desirable distance below the seat of the closet. It will be seen, upon reflection and experiment, and in testing different forms of water-closets, that the nearer the seat the surface of the standing water can be brought, the less liability there will be for spattering when the soil falls into it. In fact, if the surface could be brought so near that the soil would actually touch it before falling, there would be no spattering at all. But, of course, it should not stand so near as to come in contact with the person. The distance established as the best, all things considered, is five inches below the top of the flushing rim; and that distance has been adopted in the case of the Sanitas closet.

"7. **Accessibility and visibility of all parts, including the trap.** A study of the drawings will show that this desideratum has been attained. The closet and trap, as well as its supply-pipe and cistern, may easily be emptied by a sponge or ladle when the house is closed during the winter.

"8. **Smoothness of material.** The closet being constructed of glazed earthenware in a single piece, and everywhere with easy bends, this requirement is fully answered.

"9. **Strength and durability of construction.** The compact and simple form of the closet, the central position of the base under the bowl giving it equal and firm support, and the soundness and reliability of its soil-pipe connection, give it the greatest strength and durability possible with water-closets.

"10. **Facility and reliability of jointing.** There is but a single, simple and strong brass coupling connection to be made with the supply, and a single connection with the waste pipe. The small coupling at the flushing rim for a seat vent and cistern overflow may be used or closed up, as desired.

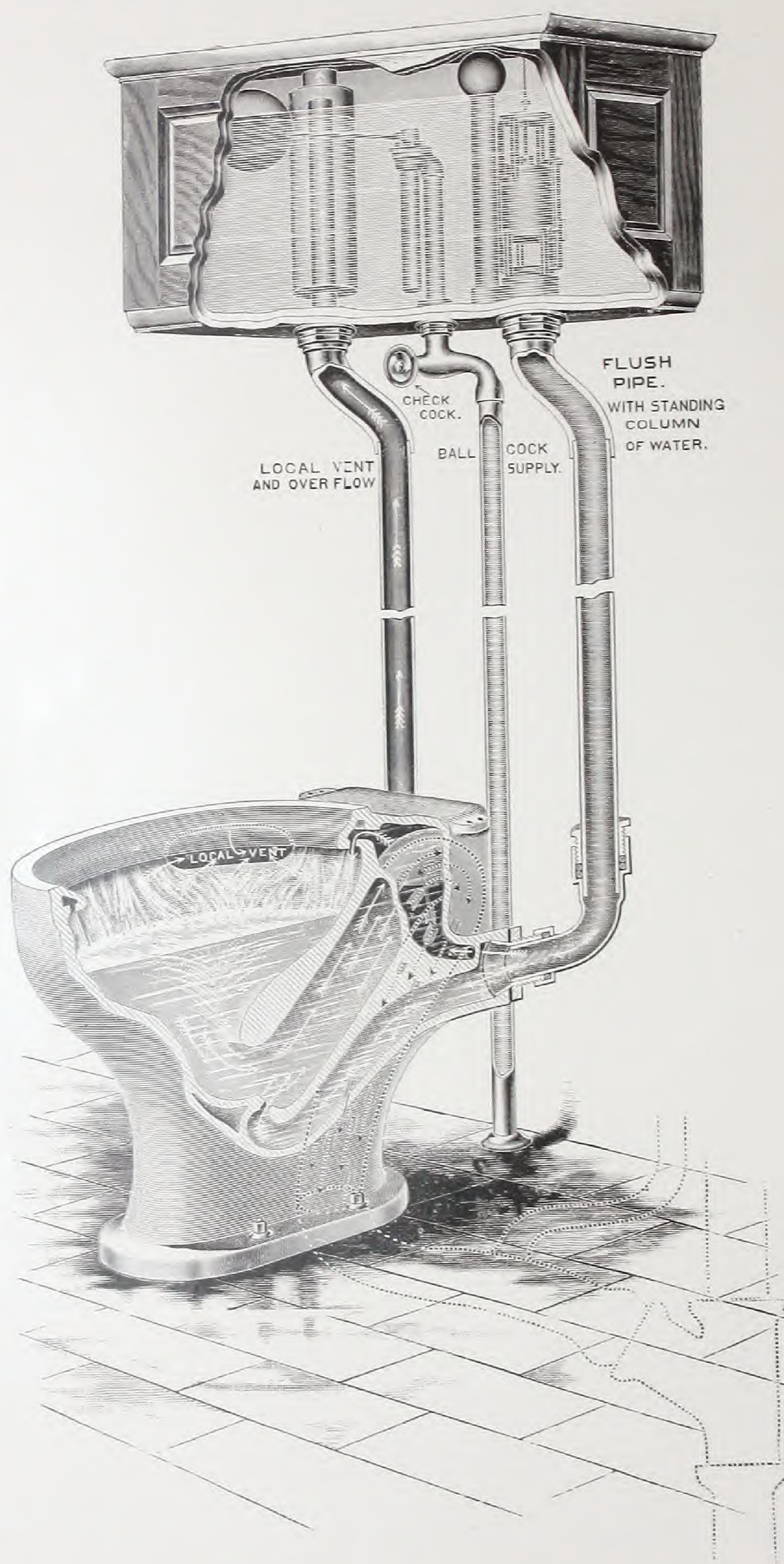
"11. **Security against evaporation and siphonage.** The new principle of supply already described, together with the unusual depth of the water-seal, render this closet practically secure against loss of seal through evaporation and siphonage.

"12. **Ease and convenience of flushing.** It is only necessary to pull the valve-chain and immediately release it again to obtain a sufficient, and no more than sufficient, flush. The trap and bowl refill themselves automatically after the flush. The valve may also be operated by a simple seat or door attachment, if desired.

"13. **Noiselessness in operation.** This very important desideratum has been very much neglected in modern water-closet construction. It has hitherto been assumed that it would be impossible to combine noiseless action with a powerful and rapid water scour. Nevertheless, this has been accomplished in our Sanitas closet in the manner already described; and the closet may be used in becoming secrecy, as is agreeable to civilized people, and without the usual "flourish of trumpets" which so ridiculously proclaims the fact to the household whenever the ordinary closet is used.

"14. **Neatness of appearance.** Now that the wise custom of setting all the plumbing fixtures open is becoming every day more general, it is important that every fixture should be so designed as to present an agreeable and appropriate appearance. The Sanitas is conceded to be the best designed closet in the market."





Section of Sanitas Regal Closet, showing its construction and connections.



## SUMMARY OF

# Special Features <sup>of</sup> the Sanitas Regal Closet.

• • • • •

**1st.** It is symmetrical in form, combining beauty with stability: the embossed pattern being modelled in a design suitable for harmonizing with any style of interior finish.

**2d.** The surface of the standing water is very large and at the most desirable distance from the seat. It has the shape best calculated to receive and deodorize the waste matters falling into it. The water is very deep at the back of the closet and the deepest at the point where the wastes strike.

**3d.** All parts of the trap and bowl are visible, insuring scrupulous cleanliness. There is no invisible trap below the bowl to become fouled.

**4th.** It combines both the jet and the siphon principles.

**5th.** Instantaneous flushing is attained by having the supply pipe always full of water, and all delay and loss of power occasioned by the water falling from the tank through the pipe, and against the resistance of the enclosed air, is avoided.

**6th.** All unpleasant odors are drawn downward, as the movement of the air current is in that direction, following the discharge from the closet bowl. In ordinary closets the air in the flush pipe is, by force of the falling water, driven out into the room, charged with noxious odors from the closet bowl. In the Sanitas Regal Closet there is no air in the flush pipes to be expelled.

The first action of the closet is through the jet, which forces the wastes out of the bowl, creating at the same time the suction which draws down all foul air. No other closet in the market has this downward suction, but all have the objectionable rush of air through the flush pipe and into the room.

**7th.** To still further minimize this trouble, the closet is provided with a large local vent in combination with the over-flow pipe.

**8th.** The combination of the accessible bowl and trap, from which the water in the closet can all be removed at pleasure. It can be easily emptied by a sponge or rubber tube, thus preventing freezing when the house is closed during the winter.

**9th.** **There can be no loss of seal by evaporation or siphonage**, as long as there is any water in the pipe; the flush pipe, being full of water, automatically restores any loss there may be from any of these causes.

**10th.** The seat of the Sanitas Closet is attached by metal hinges directly and firmly to the porcelain, and is not connected with the wall. No part of the wood work comes in contact with the closet. The back part of the closet is as accessible for cleaning as the front part, and the sanitary efficiency of the apparatus greatly enhanced thereby.

**11th.** Freedom from breakage is secured in the Sanitas Closet by using patented flexible couplings and slip joints.

**12th.** **A new valve has just been perfected for the Regal Closet, ensuring absolute certainty and uniformity of action, and making this fixture more perfect than ever.**

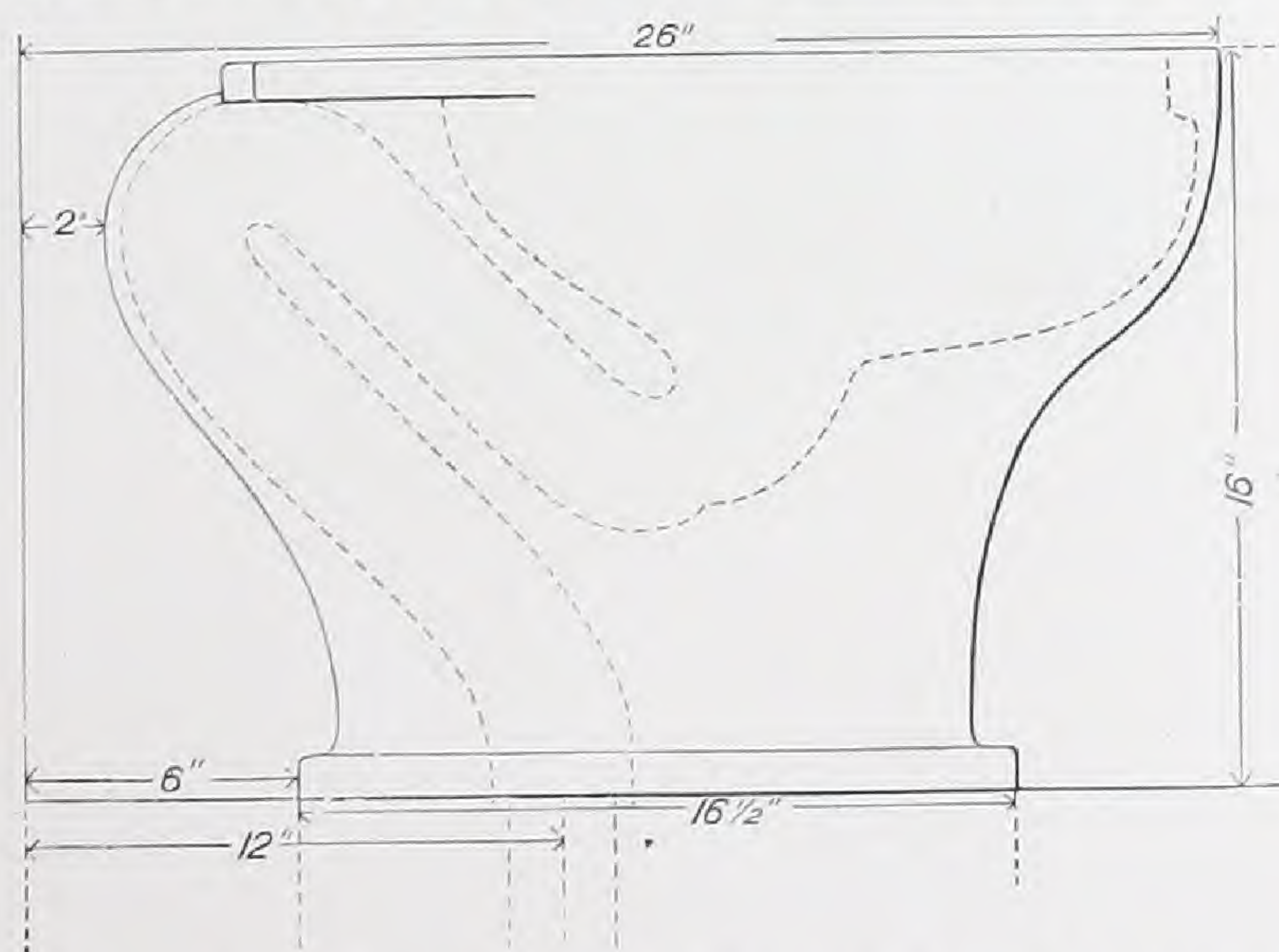


Diagram of the Sanitas Regal and Royal Closets, giving dimensions.



# Sanitas Regal Closet.

WITH SANITARY SEAT.

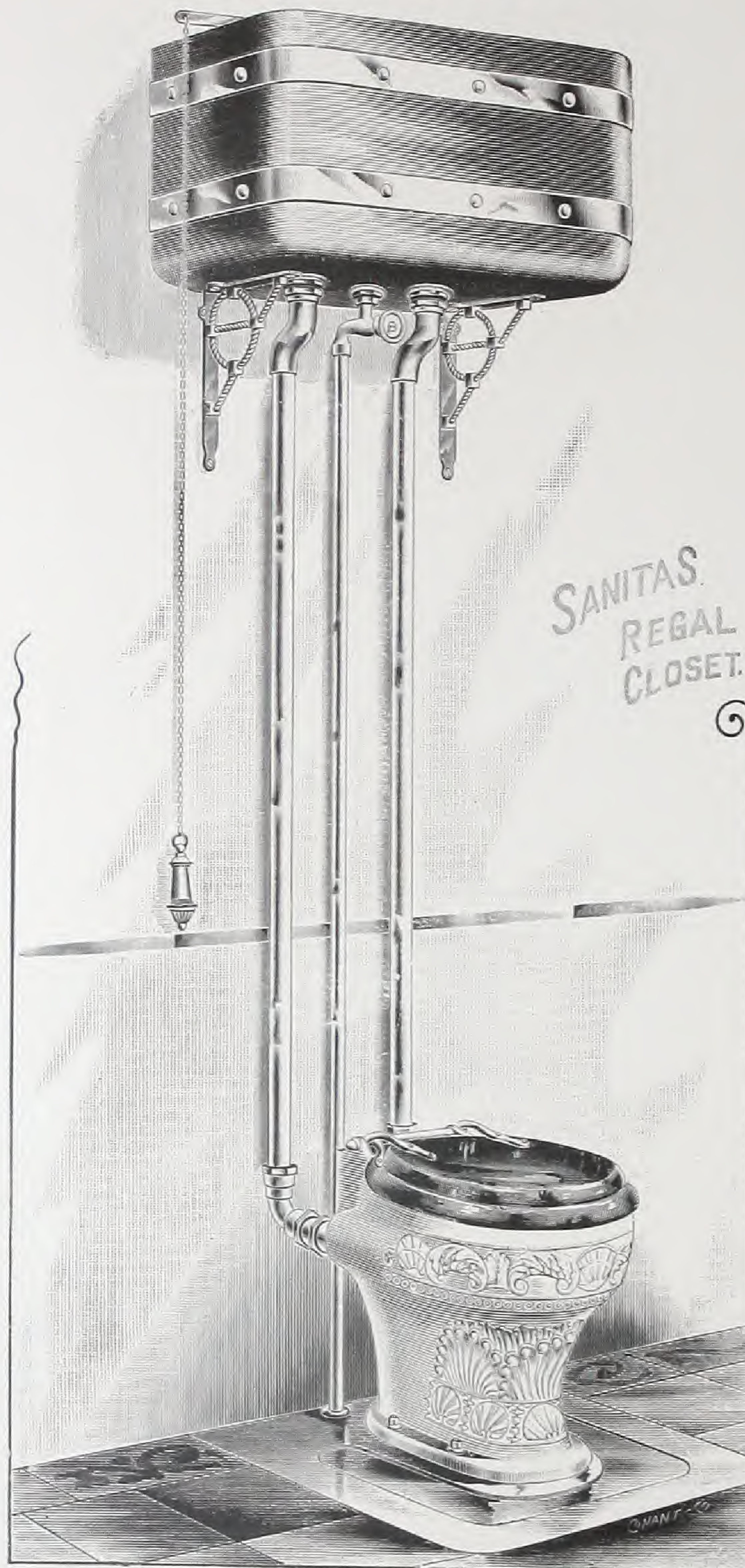


PLATE 101 C.

Consisting of Embossed Closet, with Floor Flange and Couplings; hard wood Round-Cornered Tank, with N. P. Bands and Seat to match; N. P. Tank Brackets, Chain and Pull; N. P. Flush and Overflow Pipes, with slip joints; N. P. Supply Pipe and Check Cock.

Price as described	.	.	.	.	.	.	\$84.00
Add for Italian marble floor slab	.	.	.	.	.	.	8.00
Deduct if plain closet is desired	.	.	.	.	.	.	2.00
Deduct if bands are not wanted	.	.	.	.	.	.	2.00



# Sanitas Regal Closet.

WITH SANITARY SEAT.

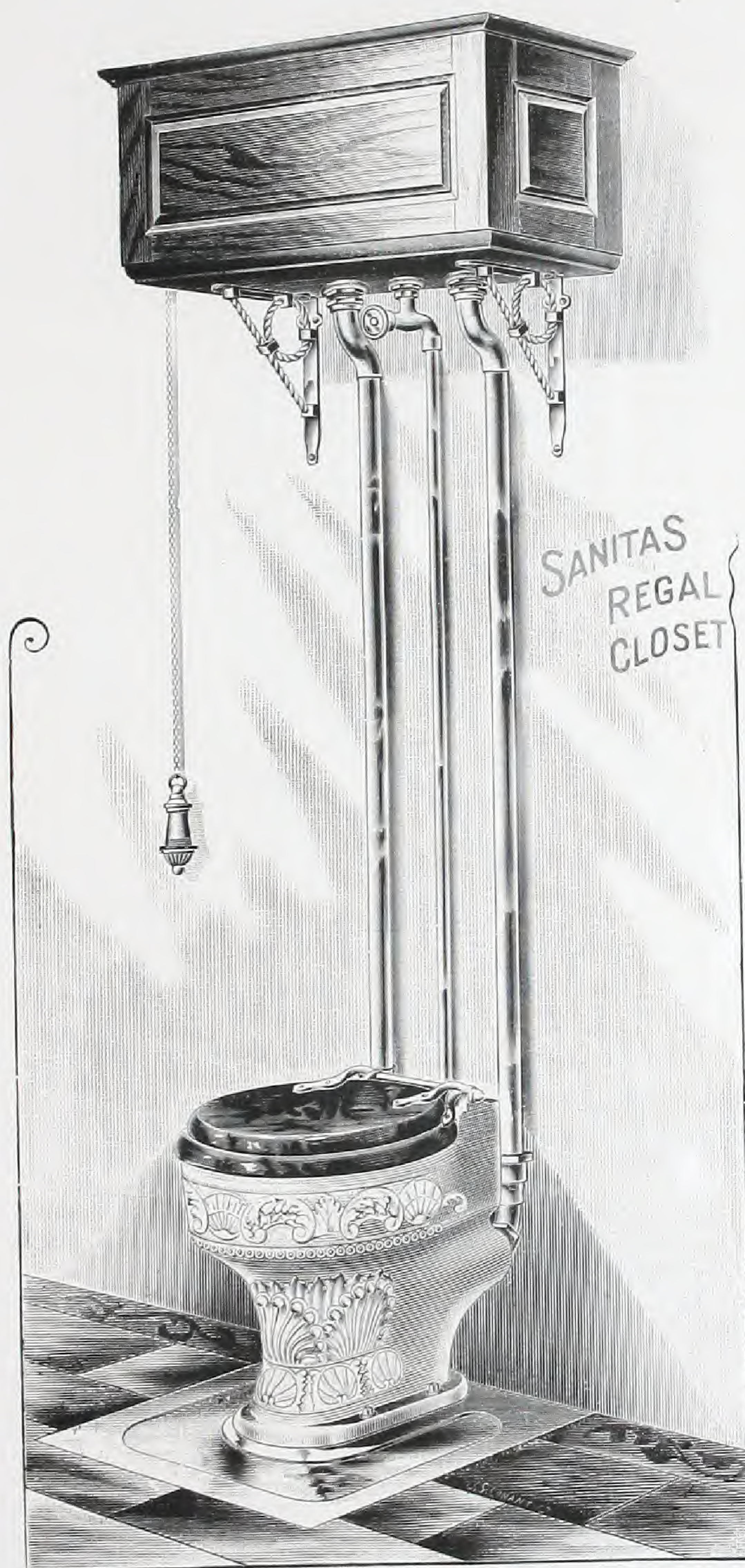


PLATE 102 C.

Consisting of Embossed Closet, with Floor Flange and Couplings, hard wood Paneled Tank, with Seat to match. N. P. Tank Brackets, Chain and Pull. N. P. Flush and Overflow Pipes, with slip joints. N. P. Supply Pipe and Check Cock.

Price as described	.	.	.	.	.	.	.	\$80.50
Add for Italian marble floor slab	.	.	.	.	.	.	.	8.00



# Sanitas Regal Closet.

WITH SANITARY SEAT.



PLATE 103 C.

Consisting of Embossed Closet, with Floor Flange and Couplings, hard wood Colonial Tank, with Seat to match. N. P. Tank Brackets, Chain and Pull. N. P. Flush and Overflow Pipes, with slip joints. N. P. Supply Pipe and Check Cock.

Price as described	.	.	.	.	.	.	.	\$82.50
Add for marble floor slab	.	.	.	.	.	.	.	8.00



# Sanitas Regal Closet.

WITH SANITARY SEAT.

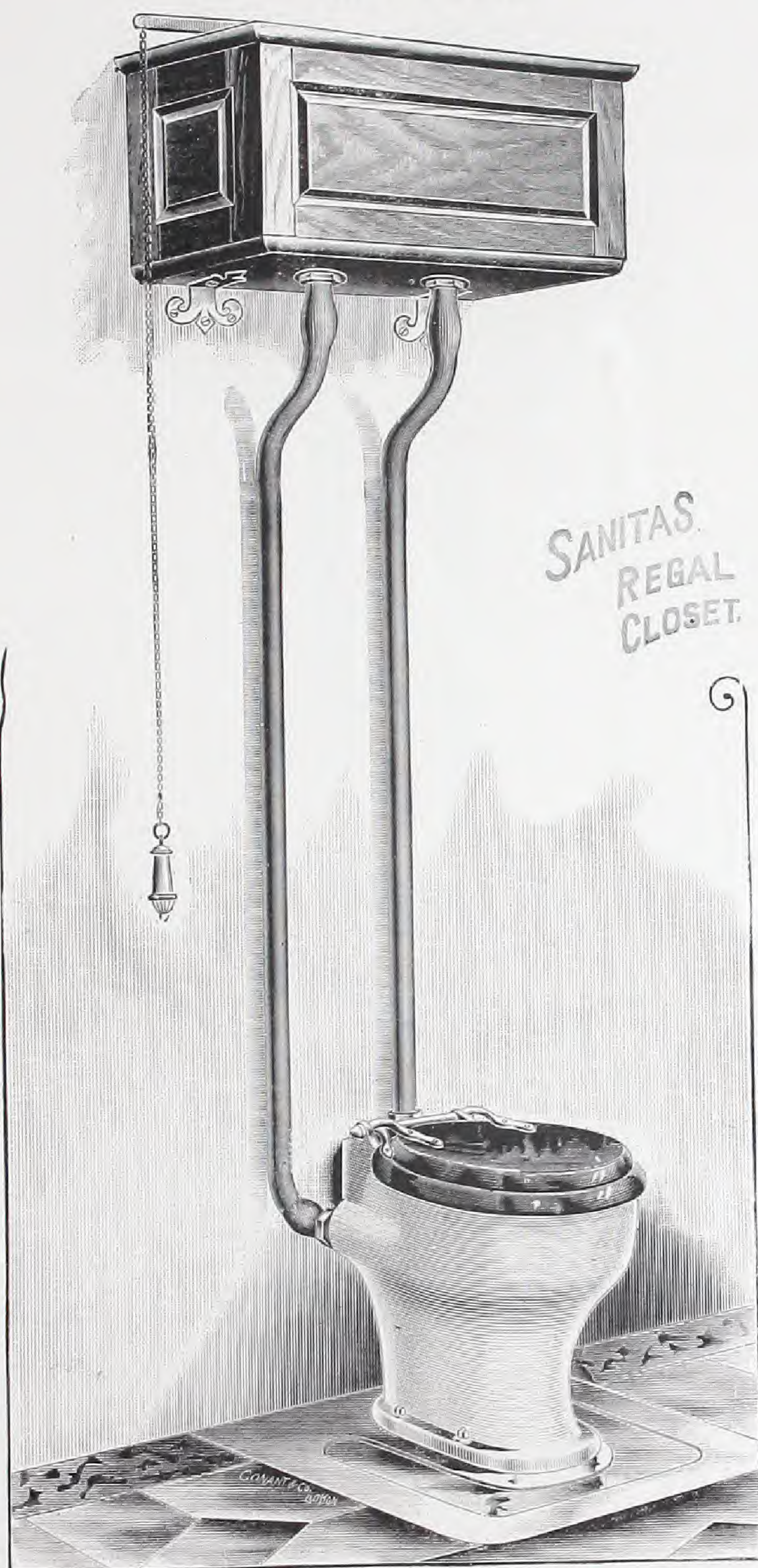


PLATE 104 C.

Consisting of Plain Closet, with Floor Flange and Couplings, hard wood Paneled Tank and Seat to match. N. P. Tank Supports, Chain and Pull.

Price as described	\$57.50
Add for marble floor slab	8.00
Add for embossed closet	2.00
Add for N. P. flush and overflow pipes, with slip joints and N. P. supply pipe, with check cock (see Plate 101 C)	17.50



# Sanitas Regal Closet.

WITH SANITARY SEAT.

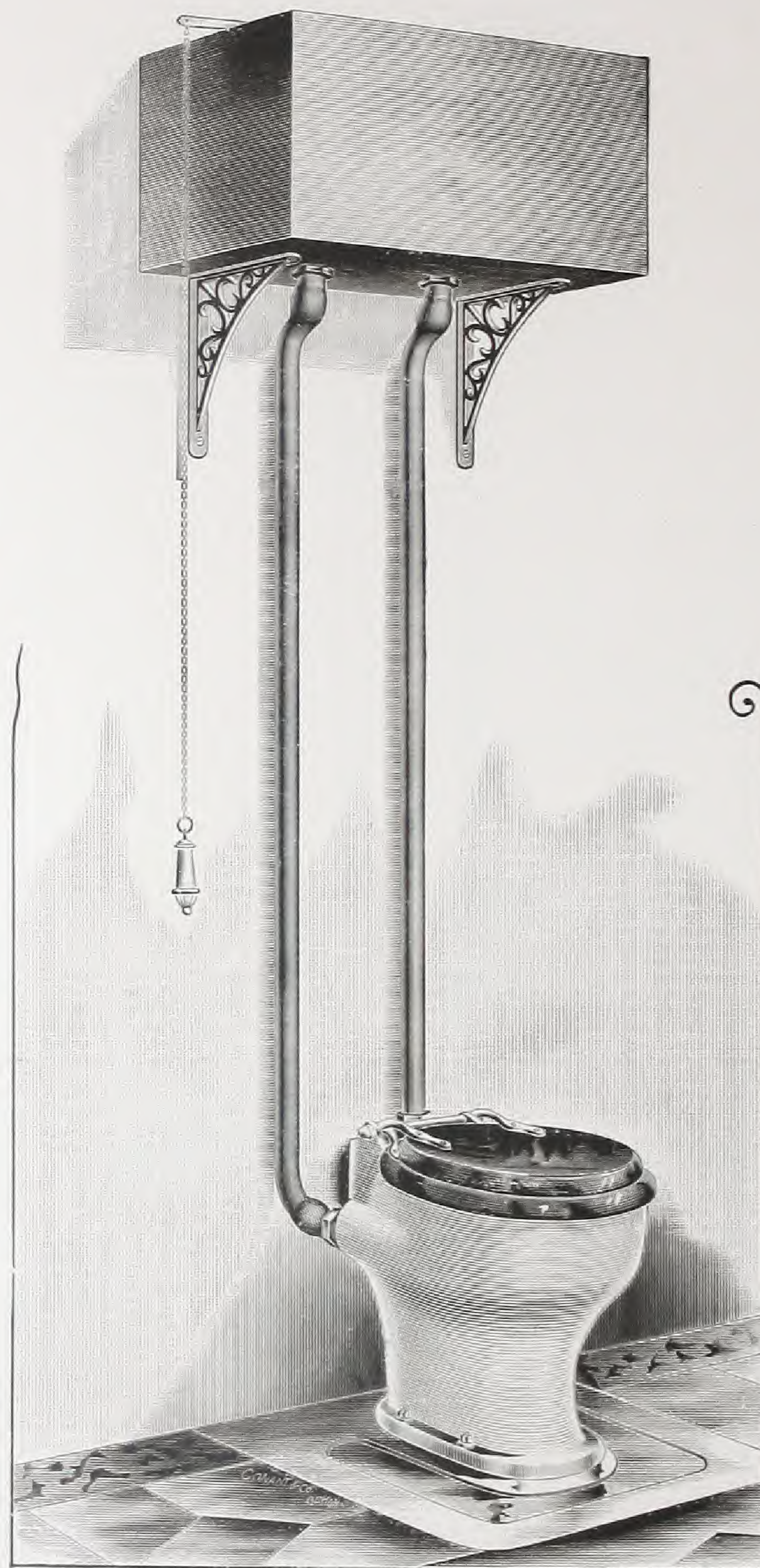


PLATE 105 C.

Consisting of Plain Closet, with Floor Flange and Couplings, hard wood Seat, Plain Pine Tank, Chain and Pull, and Japanned Iron Tank Brackets.

Price as described . . . . .	\$51.50
Add for N. P. flush and overflow pipes, with slip joints, and N. P. supply pipe, with check cock (see Plate 101 C) . . . . .	17.50
Add for Italian marble floor slab . . . . .	8.00
Add if embossed closet is desired . . . . .	2.00



# Sanitas Royal Closet.

WITH SANITARY SEAT.

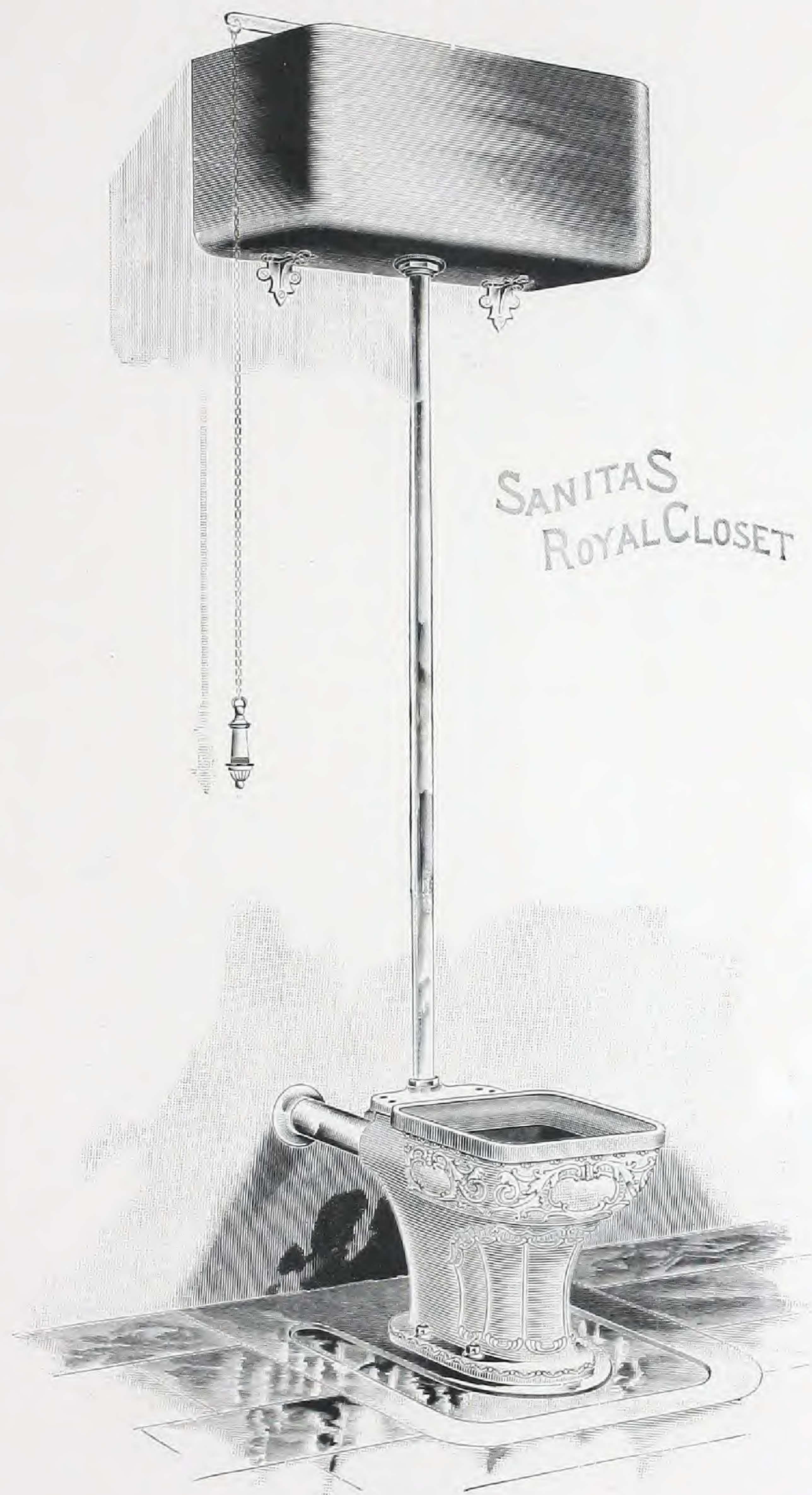


PLATE 106 C.

Consisting of Square Top Embossed Closet, with Couplings and Floor Flange, hard wood Round-Cornered Tank. N. P. Tank Supports, Chain and Pull. N. P. Flush Pipe, with slip joint. N. P. Vent Pipe.

Price as described	.	.	.	.	.	.	.	\$64.00
Add for sanitary seat	.	.	.	.	.	.	.	6.00
Add for marble floor slab	.	.	.	.	.	.	.	8.00



# Sanitas Royal Closet.

WITH SANITARY SEAT.



PLATE 107 C.

Consisting of Embossed Closet, with Coupling and Floor Flange; hard wood Colonial Tank, and Seat to match; N. P. Tank Brackets, Chain and Pull; N. P. Flush Pipe, with slip joint; N. P. Vent Pipe.

Price as described	.	.	.	.	.	.	\$67.00
Add for marble floor slab	.	.	.	.	.	.	8.00



# Sanitas Royal Closet.

WITH SANITARY SEAT.

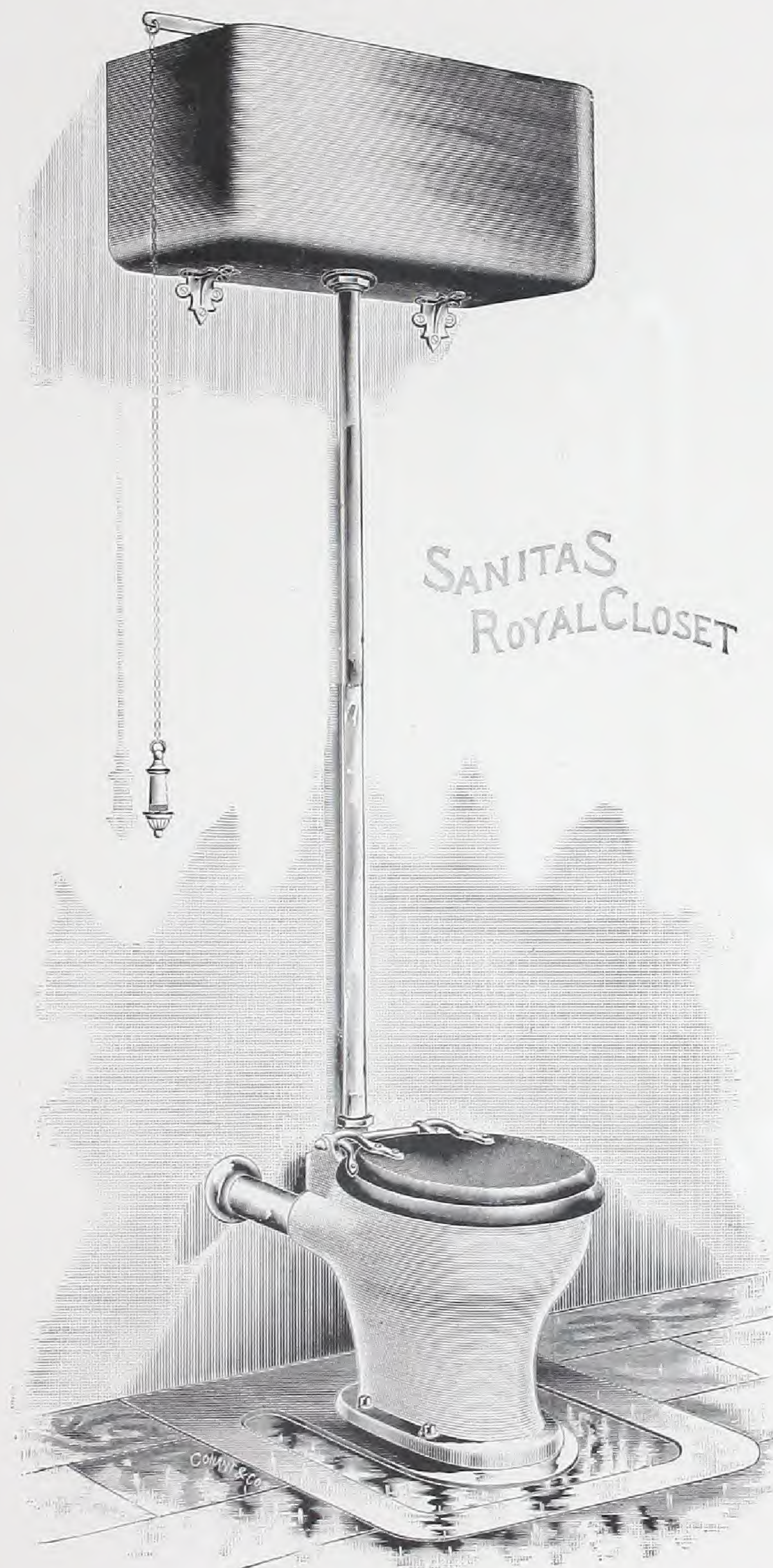


PLATE 108 C.

Consisting of Plain Closet, with Floor Flange and Coupling, hard wood Round-Cornered Tank, with Seat to match. N. P. Tank Supports, Chain and Pull. N. P. Vent Pipe. N. P. Flush Pipe, with slip joint.

Price as described	.	.	.	.	.	.	\$59.50
Add for marble floor slab	.	.	.	.	.	.	8.00
Add for embossed closet	.	.	.	.	.	.	2.00



# Sanitas Royal Closet.

WITH SANITARY SEAT.



PLATE 109 C.

Consisting of Plain Closet, with Coupling and Floor Flange, hard wood Paneled Tank, and Seat to match. N. P. Tank Support, Chain and Pull. N. P. Vent Pipe.

Price as described	.	.	.	.	.	.	\$56.00
Add for marble floor slab	.	.	.	.	.	.	8.00
Add for embossed closet	.	.	.	.	.	.	2.00



# Sanitas Royal Closet.

WITH SANITARY SEAT.

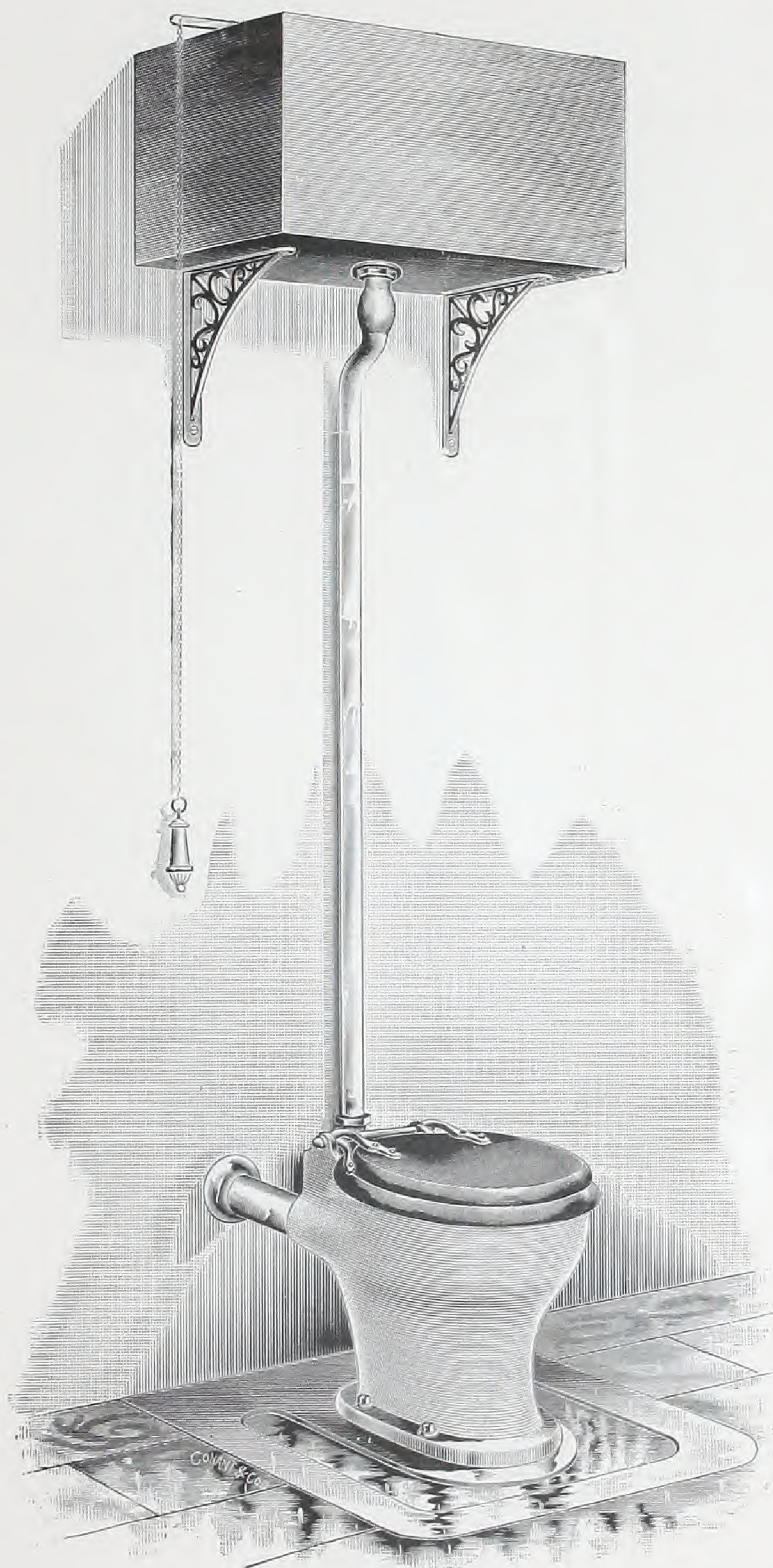


PLATE 110 C.

Consisting of Plain Closet, with Floor Flange and Coupling, hard wood Seat, Pine Tank, with Japanned Iron Brackets, Chain and Pull. N. P. Vent Pipe.

Price as described	.	.	.	.	.	.	\$50.00
Add for N. P. flush pipe	.	.	.	.	.	.	3.50
Add for marble floor slab	.	.	.	.	.	.	8.00
Add for embossed closet	.	.	.	.	.	.	2.00



# Sanitas Crown Closet.

WITH SANITARY SEAT.

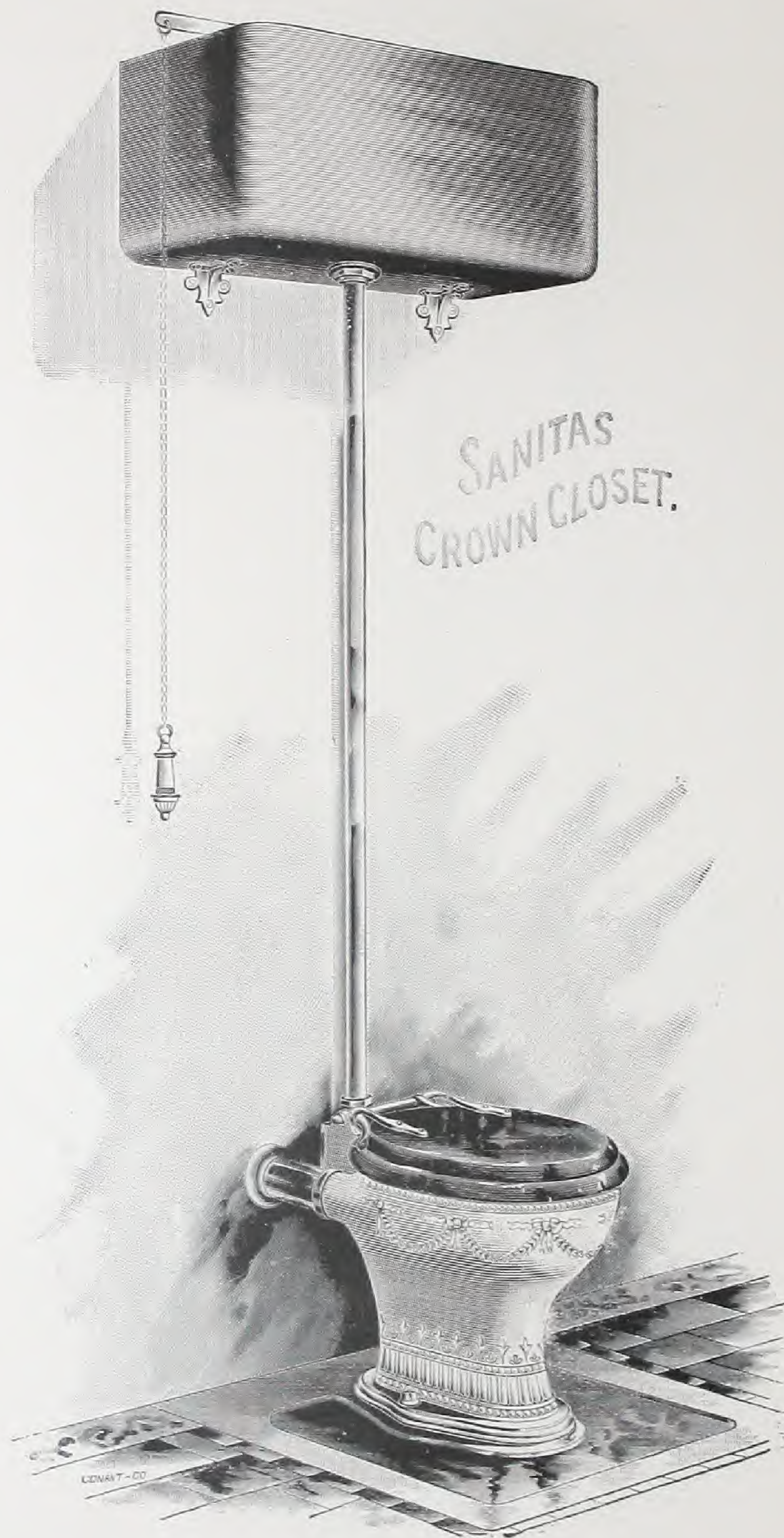


PLATE III C.

Consisting of Embossed Closet, with Coupling and Floor Flange; hard wood Round-Cornered Tank and Seat to match; N. P. Tank Supports, Chain and Pull; N. P. Flush Pipe, with slip joint; N. P. Vent Pipe.

Price as described	.	.	.	.	.	.	\$50.00
Add for marble floor slab	.	.	.	.	.	.	8.00



# Sanitas Crown Closet.

WITH SANITARY SEAT.



PLATE 112 C.

Consisting of Plain Closet, with Coupling and Floor Flange, hard wood Round-Cornered Tank and Seat to match. N. P. Tank Supports, Chain and Pull. N. P. Flush Pipe, with slip joint. N. P. Vent Pipe.

Price as described	.	.	.	.	.	.	\$48.00
Add for embossed closet	.	.	.	.	.	.	2.00
Add for marble floor slab	.	.	.	.	.	.	8.00



# Sanitas Crown Closet.

WITH SANITARY SEAT.

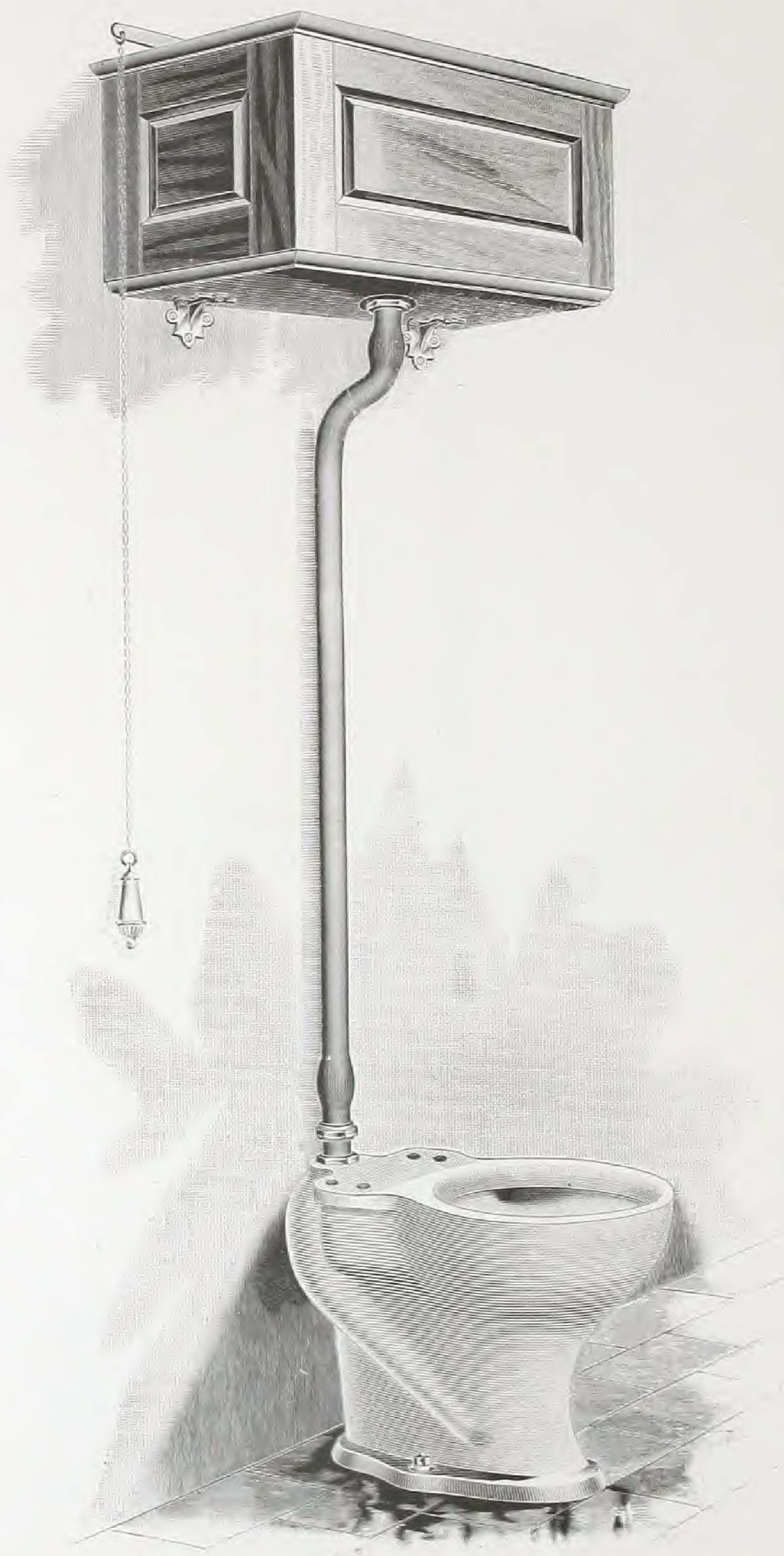


PLATE 113 C.

Consisting of Plain Closet, with Coupling and Floor Flange, hard wood Paneled Tank. N. P. Tank Supports, Chain and Pull.

Price as described . . . . .	\$37.00
Add for N. P. flush pipe, with slip joint . . . . .	3.50
Add for N. P. vent pipe as shown in Plate 112 C . . . . .	1.50
Add for hard wood seat . . . . .	6.00
Add for embossed closet . . . . .	2.00



# Sanitas Crown Closet.

WITH SANITARY SEAT.

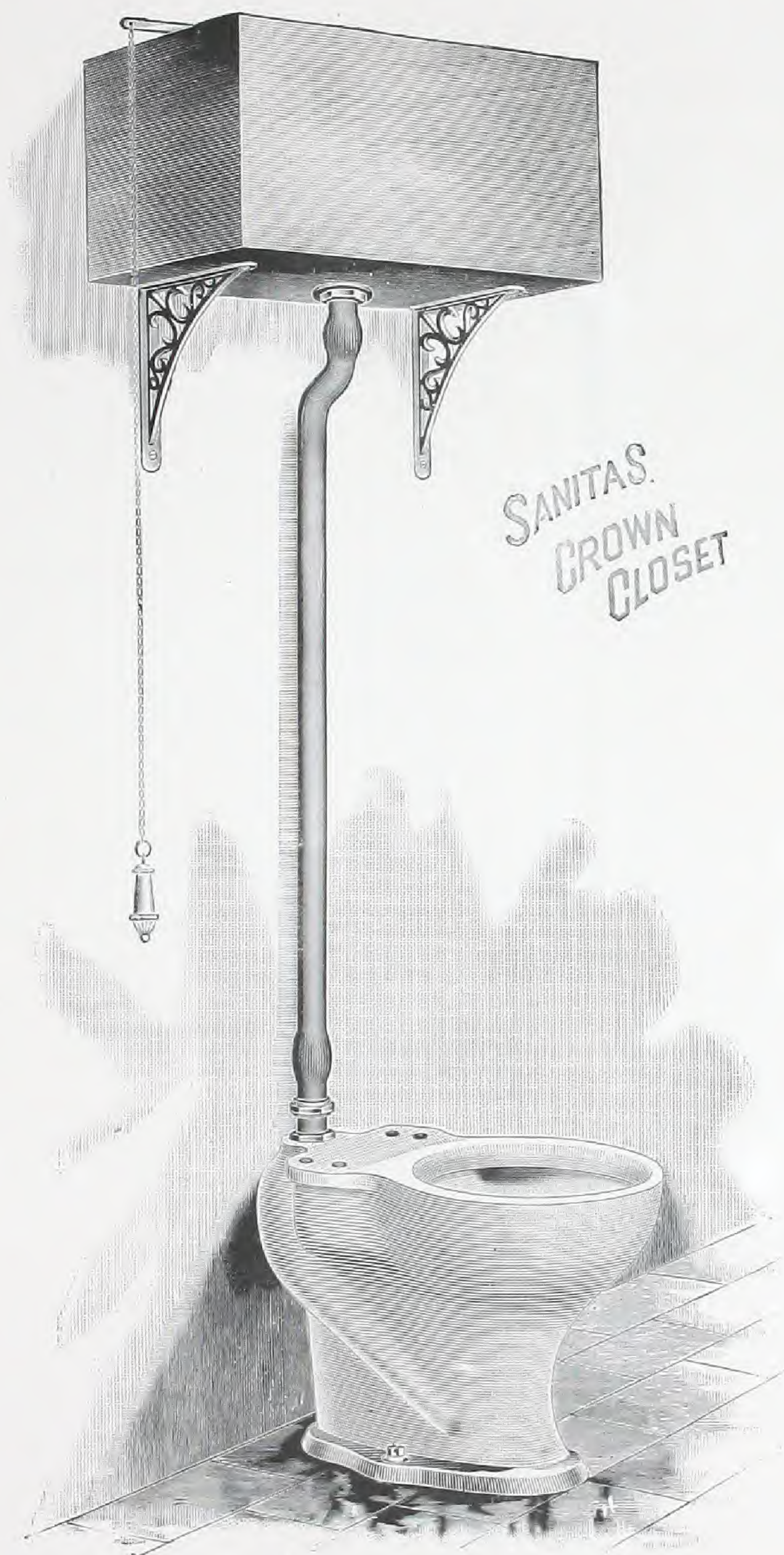


PLATE 114 C.

Consisting of Plain Closet, with Coupling and Floor Flange, Plain Pine Tank, Japanned Brackets, Chain and Pull.

Price as described	.	.	.	.	.	.	\$31.50
Add for hard wood seat	.	.	.	.	.	.	6.00
Add for embossed closet	.	.	.	.	.	.	2.00
Add for N. P. vent pipe as shown in Plate 112 C	.	.	.	.	.	.	1.50



## Sanitas Crown Closet.

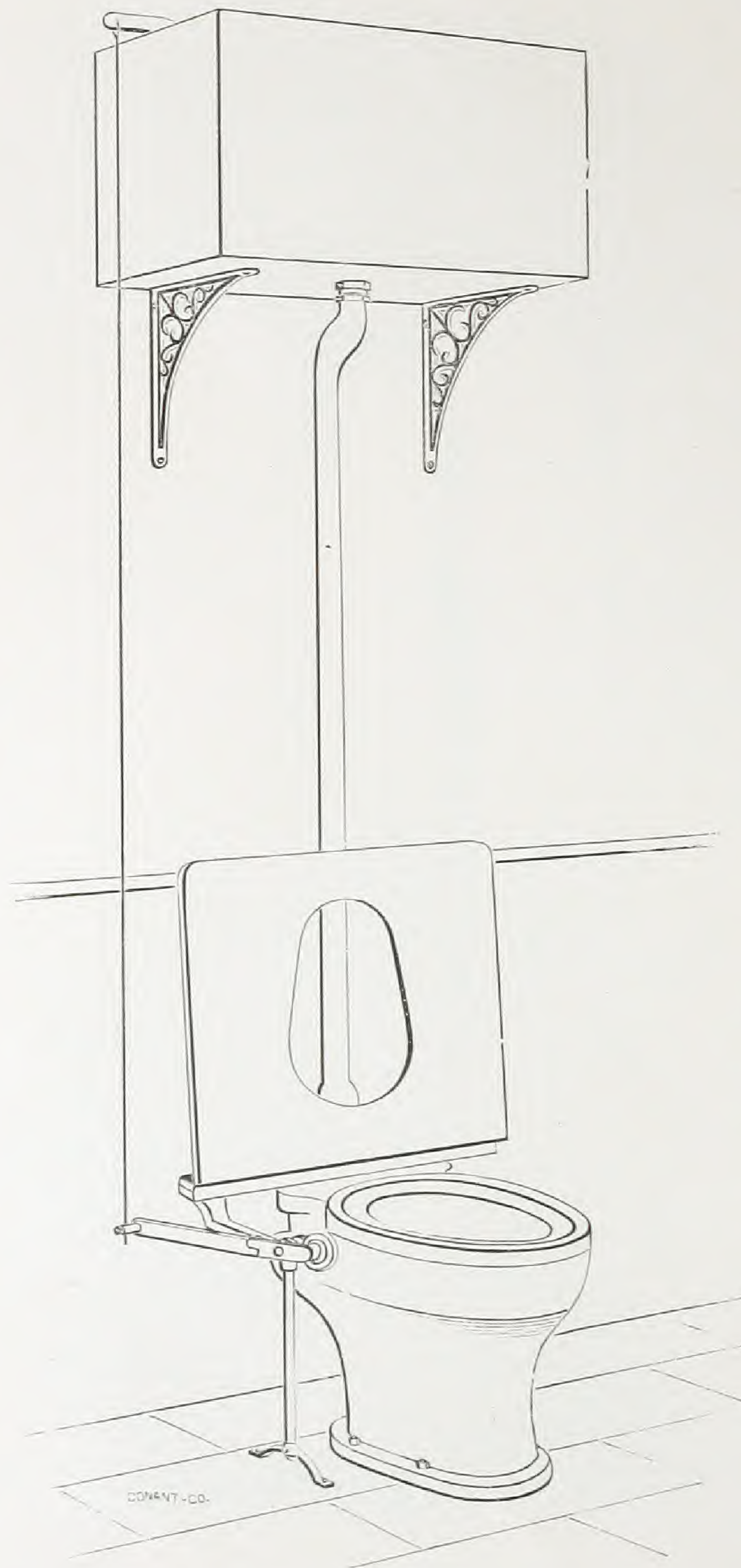


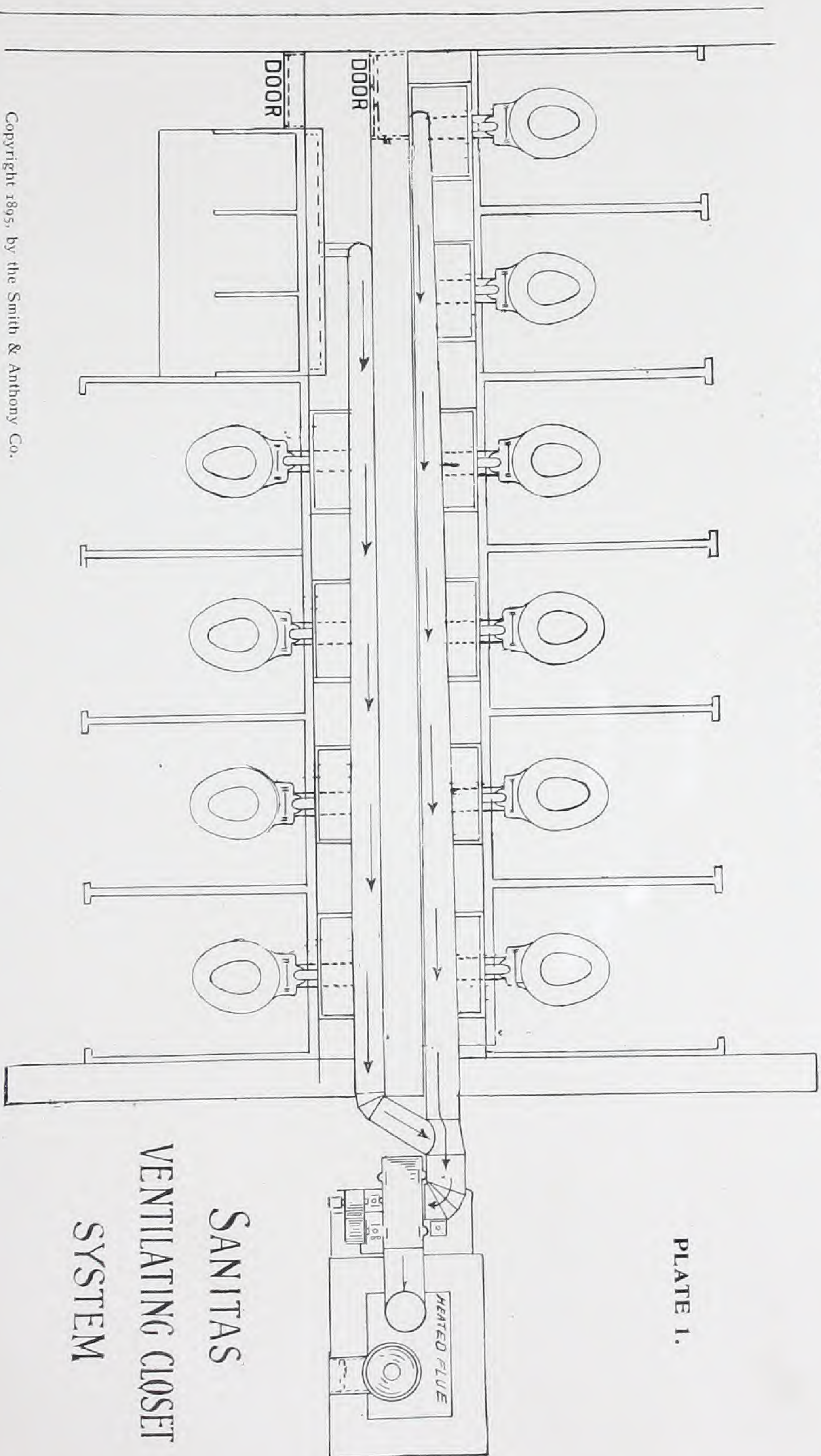
PLATE 115 C.

Consisting of Plain Closet, with Floor Flange and Coupling, Plain Pine Tank, with Japanned Iron Brackets, hard wood Seat less lid, and with Automatic After-wash Seat Attachment. N. P. Vent Pipe.

Price as shown, less flush pipe . . . . . \$43.50



# Girls' Toilet Room.



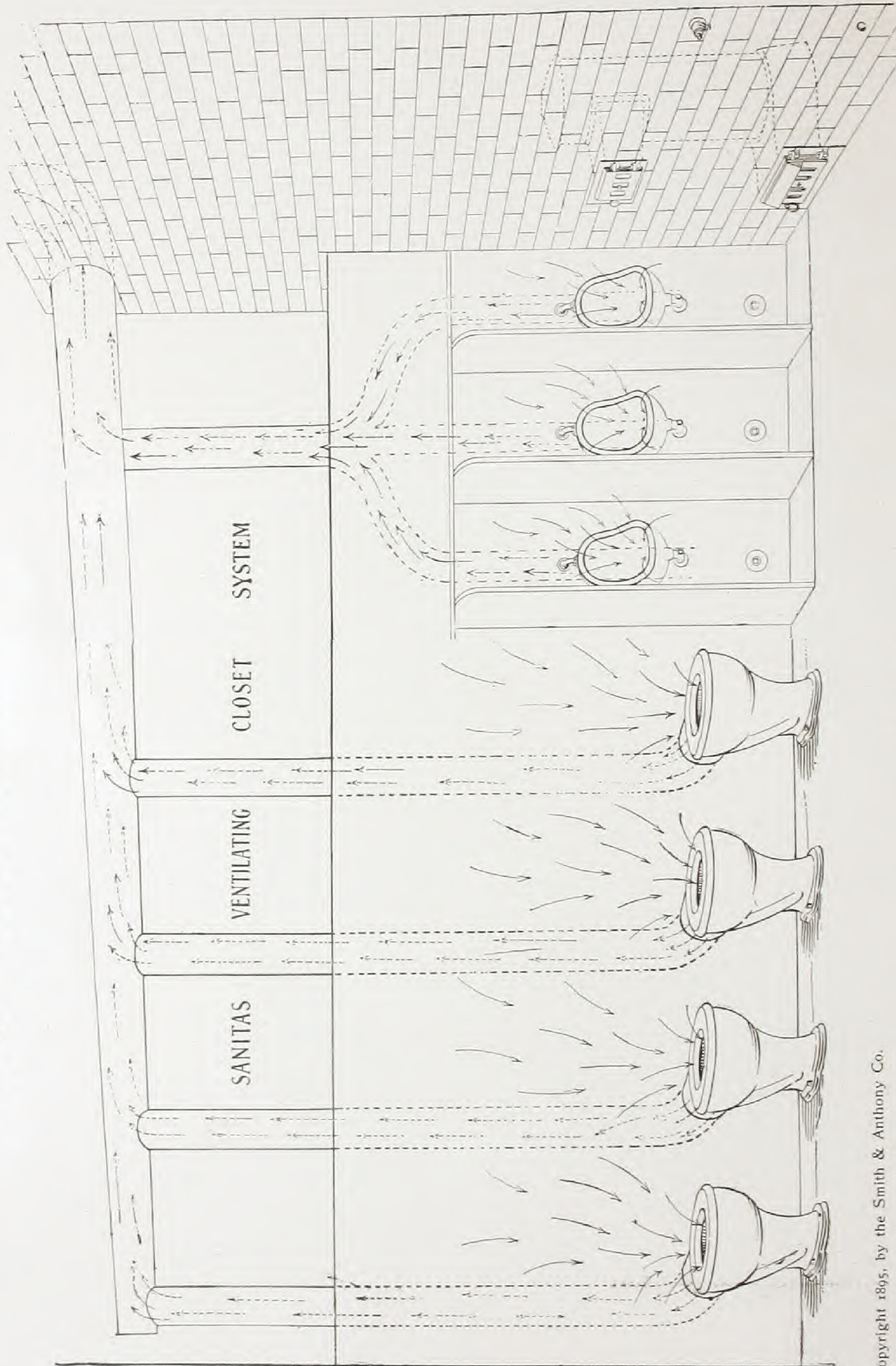
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# Boys' Toilet Room, with Urinals.

FLOOR PLAN OF SANITAS COMBINATION SYSTEM OF BOYS' AND GIRLS' VENTILATING CLOSETS.



# Boys' Toilet Room.

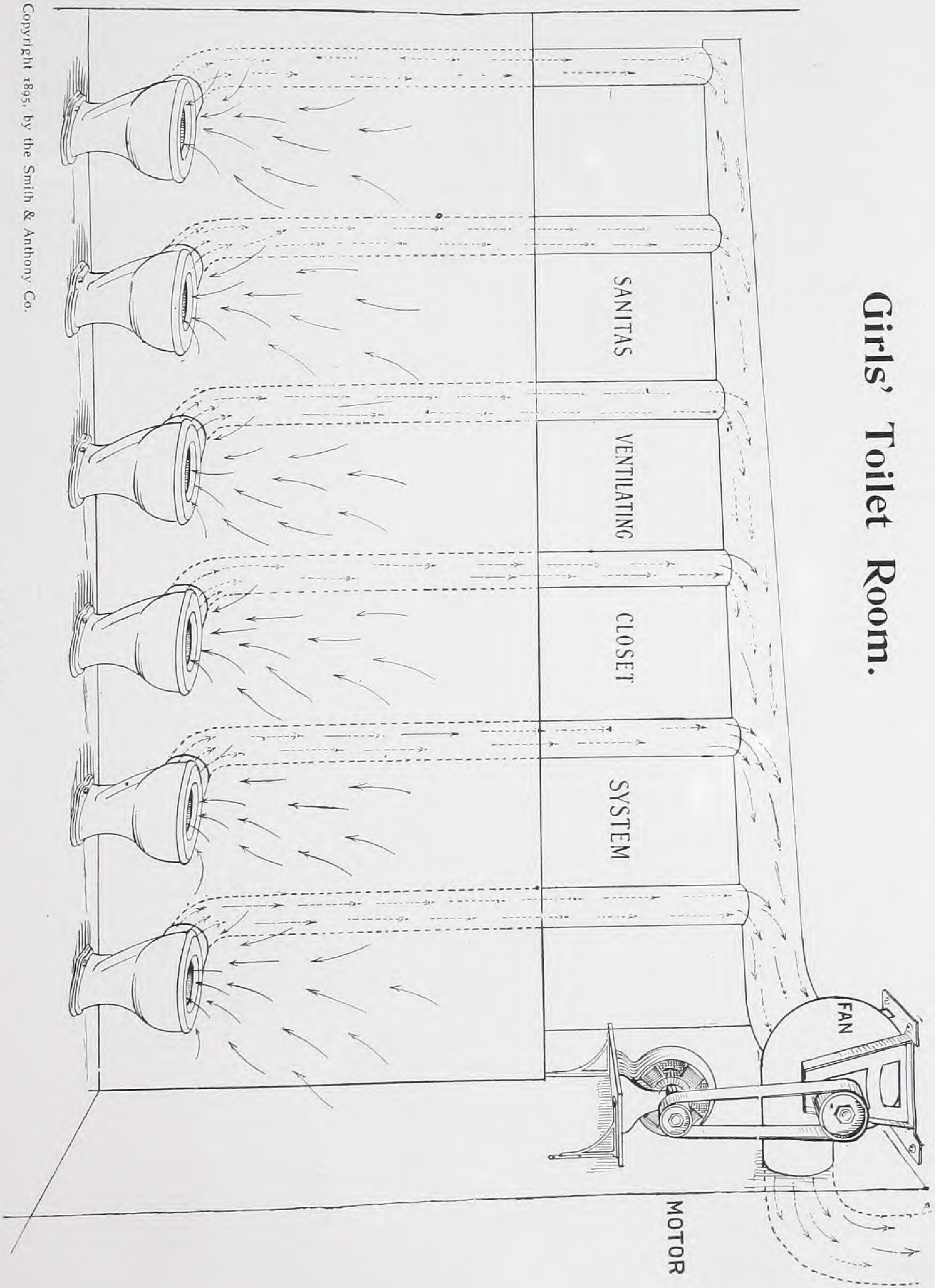


Copyright 1895, by the Smith & Anthony Co.

PLATE 2.



# Girls' Toilet Room.



Copyright 1895, by the Smith & Anthony Co.

PLATE 3.



## The Sanitas Ventilating School Closets.

PLATE 1 shows Floor Plan of Combination System of Boys' and Girls' Sanitas Ventilating Closets—boys' side also showing Urinals.

The boys' and girls' rooms are completely separated by a brick wall, rising to the ceiling.

Back of the closet bowls, in each room, are partitions, rising above the tanks and concealing the fixtures. Back of these partitions, and between them and the brick wall, are passage ways, in which are located the tanks and piping. These passage ways are entered by a door from the boys' side, making all the fixtures easily accessible for inspection or repairs, without intruding on the privacy of the girls' room. As the closet bowl, only, is exposed in the toilet room, there is no chance for the fixtures to be interfered with by the children.

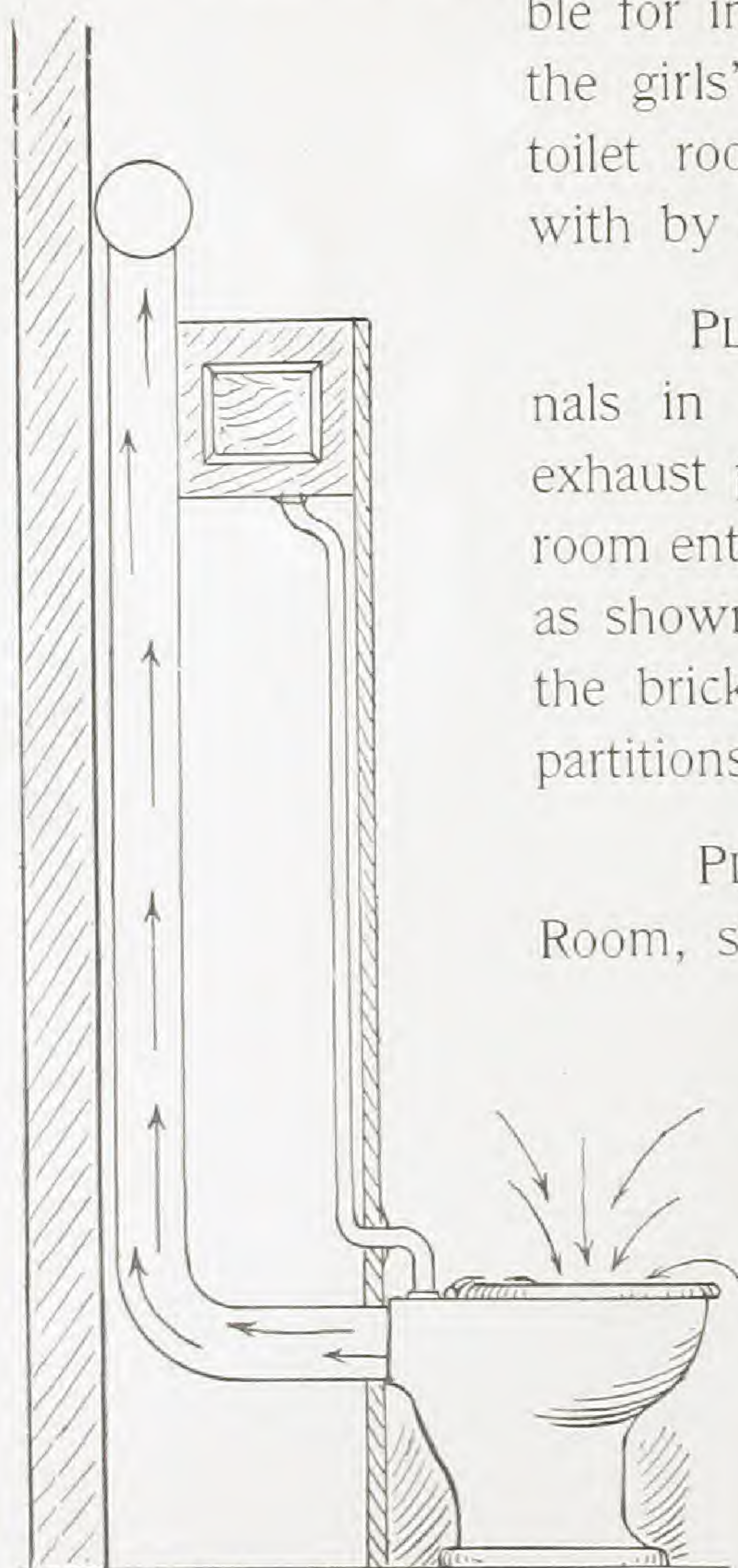


PLATE 4.

PLATE 2 shows a battery of Sanitas Closets and three Urinals in Boys' Toilet Room. The large vent pipes enter the exhaust pipe at the top, and the vent pipes from the girls' toilet room enter the same pipe. To create an exhaust, a fan can be used as shown in the next cut, or a heater placed in the bottom of the brick ventilating chimney, as shown in this cut. There are partitions between the closets same as shown in Plate 1.

PLATE 3 shows elevation and perspective of Girls' Toilet Room, showing Sanitas Ventilating Closets, with large vent pipes connecting with exhaust flue. The exhaust is created by a fan placed at the opening in the brick flue. The arrows indicate the movement of the air going on all the time, making the system of ventilation continuous in its action. Between each closet there are partitions as shown in Plate 1.

PLATE 4 shows a section of one of the closets, showing the arrangement and relation of the tank, flush pipe, and ventilating pipe. The extreme simplicity of the apparatus is readily seen from this cut.



# The Sanitas Ventilating Closet.

## With Special Ventilating Features.

Combining a ventilating closet with a complete ventilating system for the toilet room.

The only closet made with double ventilating flues, having a capacity equal to a 4 in. pipe. This 4 in. vent pipe leads from the rear of the closet to an heated flue. When so connected, the unusually large vent is continuous in its action, and ensures a thorough ventilation of the apartment in which it is placed.

The two ventilating flues leading from the closet are each twice as large as the single vent ordinarily used on closets. They come together in a single outlet inside the pottery, the outlet horn being against the wall, entirely concealing the metal connection. There is a steady downward draught through the seat, rapidly drawing all undesirable odors from the closet and room.

Besides its advantages as a ventilator this closet is remarkable for its strength and durability, these features being secured by unusually thick porcelain in the places where most likely to receive rough usage.

It is a thoroughly reliable sanitary arrangement for ventilating not only the closet but the entire room, and its certainty of operation makes it independent of, and separate from, any system of general ventilation. **It is especially desirable for institutions, schools, asylums, hotels, office buildings, etc.**

The only ventilating connections exposed in the room are porcelain, thus ensuring cleanliness and neatness of appearance. The closet has an unusually deep seal and large area of standing water.

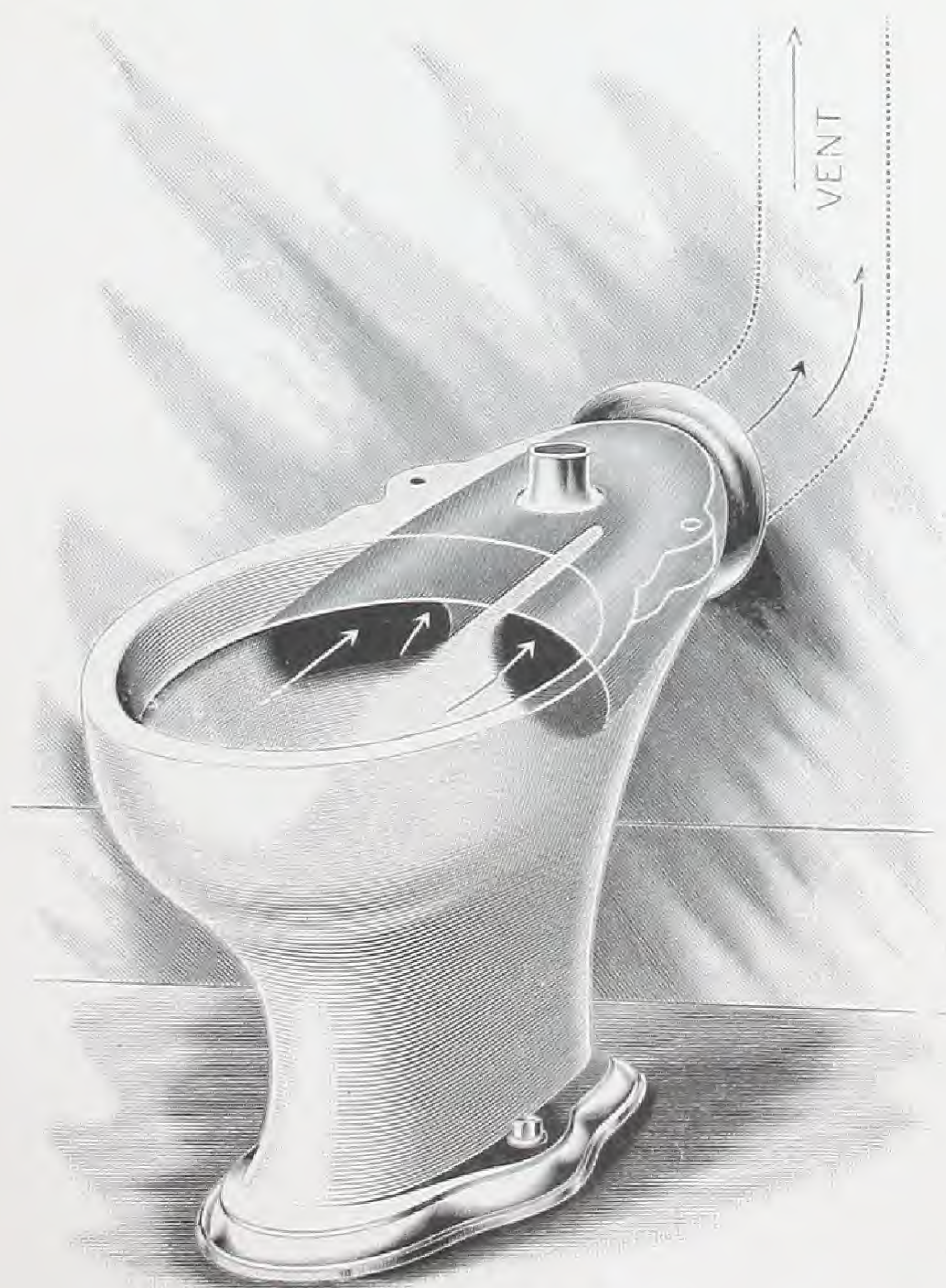


PLATE 116 C.

The Sanitas Ventilating Closet, with Double Vent Flues.



# Sanitas Ventilating Closet.

WITH SANITARY SEAT.



PLATE 117 C.

Consisting of Plain Closet, with Coupling and Floor Flange, hard wood Round-Cornered Tank, and Seat to match. N. P. Tank Supports, Chain and Pull. N. P. Flush Pipe, with Slip Joint.

Price as described	.	.	.	.	.	.	\$50.00
Add for embossed closet	.	.	.	.	.	.	2.00
Add for marble floor slab	.	.	.	.	.	.	8.00



# Sanitas Ventilating Closet.

WITH SANITARY SEAT.



PLATE 118 C.

Consisting of Plain Closet, with Coupling and Floor Flange, Plain Pine Tank, hard wood Seat, Japanned Brackets, Chain and Pull. No Flush Pipe.

Price as described	.	.	.	.	.	.	\$39.50
Add for embossed closet	.	.	.	.	.	.	2.00
Add for N. P. flush pipe	.	.	.	.	.	.	3.50



# Sanitas Roman Bath.

WITH WIDE ROLL RIM.

COPYRIGHT 1895.

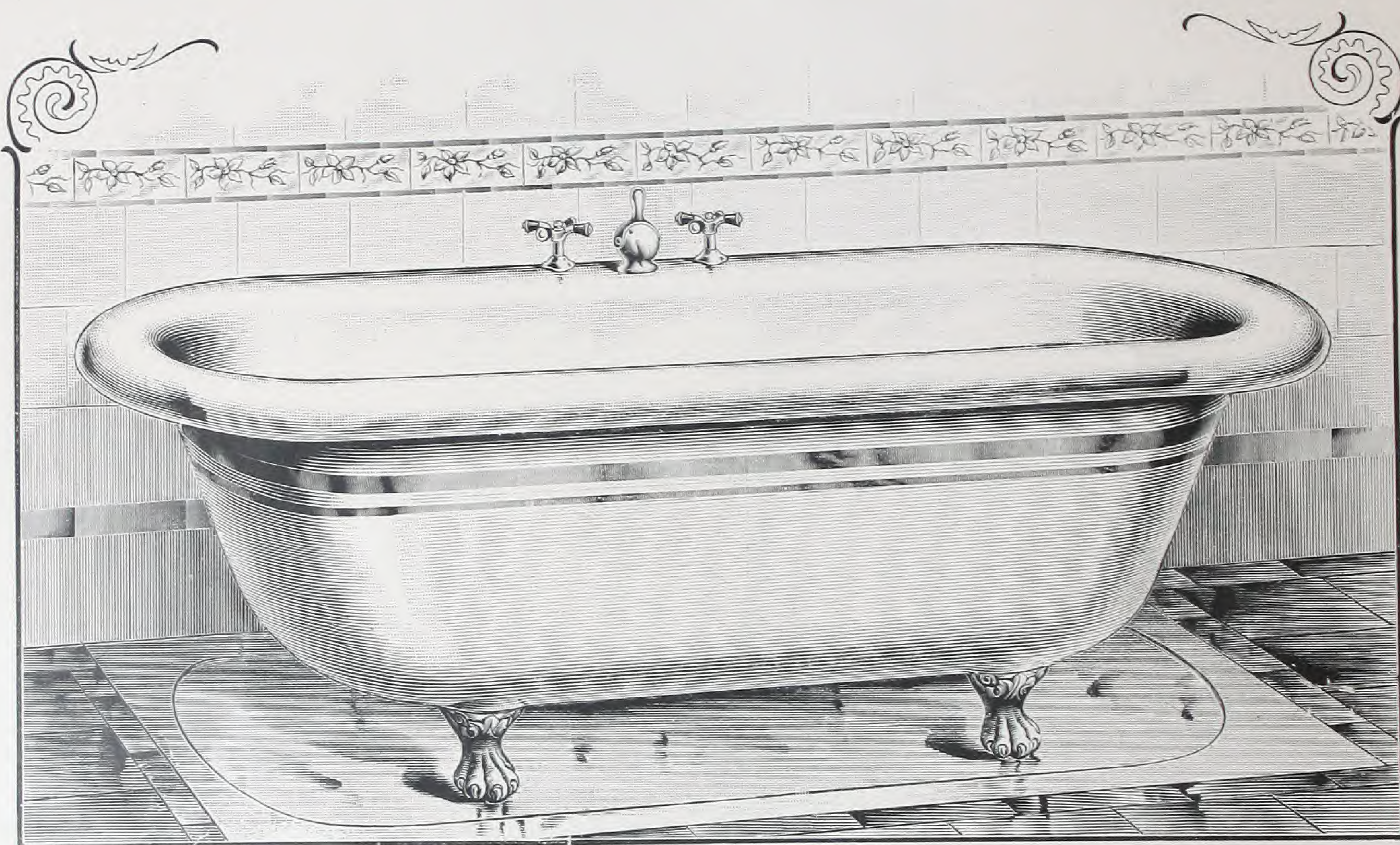


PLATE 120 C.

Consisting of Sanitas Roman Roll-Rim Porcelain Enameled Iron Bath, as shown, less the marble, with N. P. Combination Low-down Supply, N. P. Sanitas Waste.

Height on legs, 24½ inches. Width over all, 35 inches. Depth inside, 19 inches.

Size of tub (length over all)	5 ft.	5½ ft.	6 ft.
Price as described, finished outside	\$111.00	\$117.00	\$126.00

If without gold bands, deduct \$4.00.

Our extra wide, under-roll rim is a new invention. A perfect continuous enameled roll, which in appearance far surpasses the all-porcelain bath, and is incomparably superior to the ordinary roll-rim enameled iron baths.

In general appearance, beauty of outline and finish and quality of enamel, these baths are unequaled.

When specifying or ordering, please give catalogue name and number, viz.: Sanitas Roman Bath, Plate 120 C.



# Sanitas Imperial Bath.

WITH WIDE ROLL RIM.

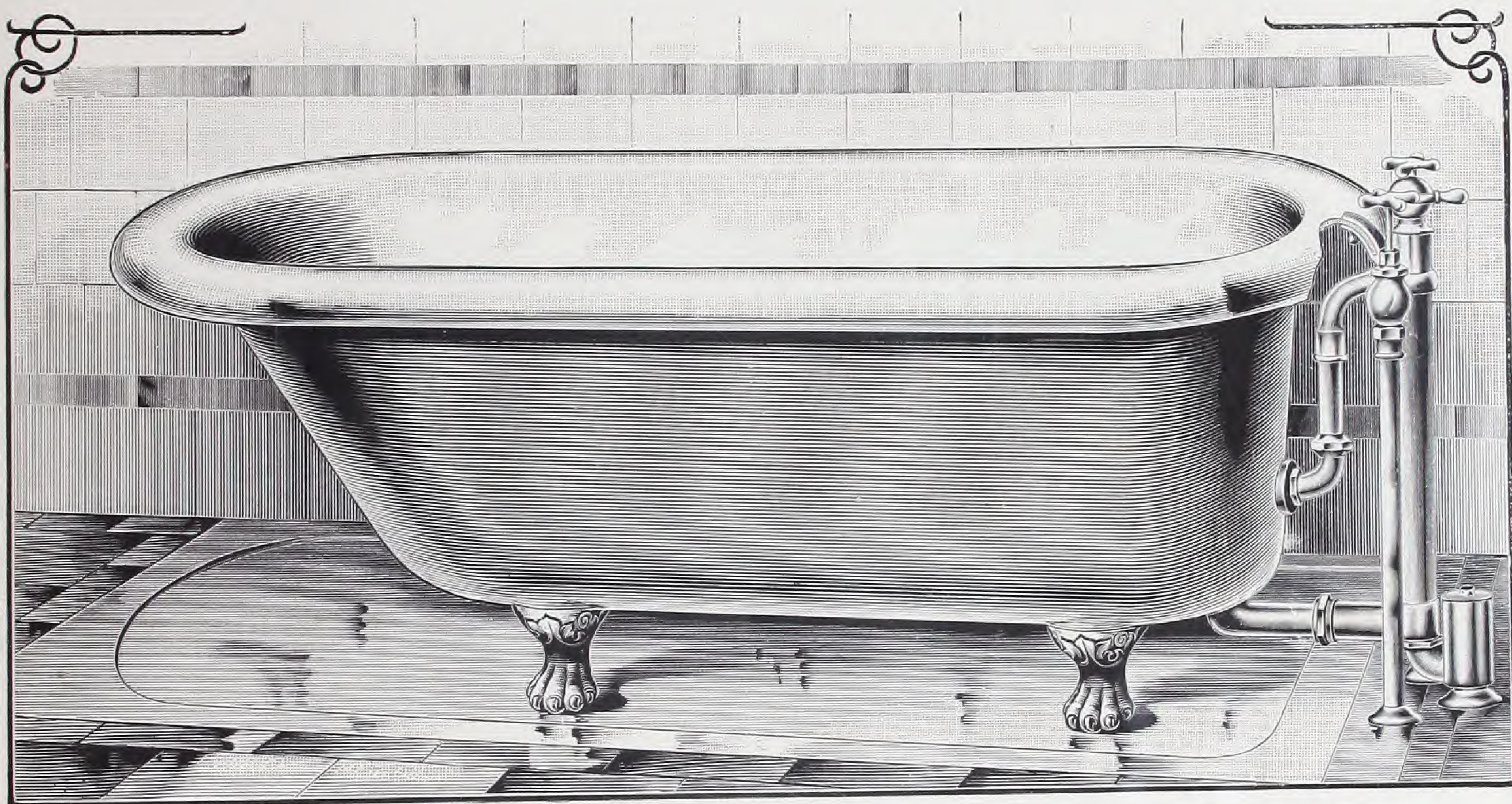


PLATE 121 C.

Consisting of Sanitas Imperial Roll-Rim Porcelain Enameled Iron Bath, as shown, with N. P. Combination Low-down Supply, N. P. Sanitas Waste.

## DIMENSIONS AND PRICES.

Height on legs, 24½ inches. Width over all, 34 inches. Depth inside, 19 inches.			
Size of tub (length over all)	5 ft.	5½ ft.	6 ft.
Price as described, finished outside	\$107.50	\$113.50	\$124.00

Our extra wide under-roll rim is a new invention. A perfect continuous roll, which in appearance far surpasses the all-porcelain bath, and is incomparably superior to the ordinary roll-rim enameled iron baths.

In general appearance, beauty of outline and finish, and quality of enamel, these baths are unequaled.

We claim that these baths are the very newest in design, and of most approved construction, fully meeting every requirement of a modern perfect bath tub.

When specifying or ordering, please give catalogue name and number, viz.: Sanitas Imperial Bath, Plate 121 C.



# Sanitas Imperial Bath.

WITH WIDE ROLL RIM.

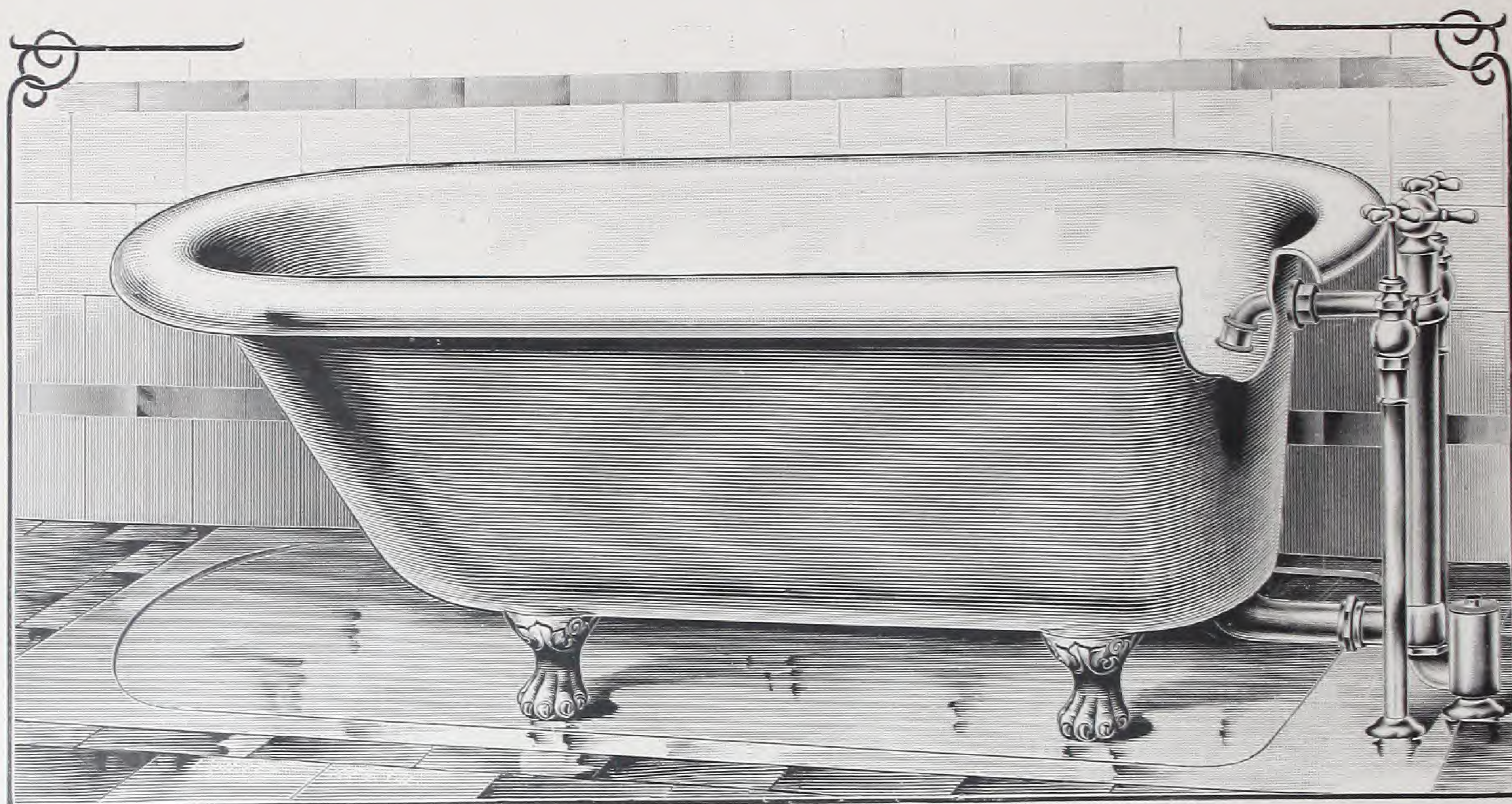


PLATE 122 C.

Consisting of Sanitas Imperial Roll-Rim Porcelain Enameled Iron Bath, as shown, with N. P. Combination Supply, N. P. Sanitas Waste.

## DIMENSIONS AND PRICES.

Height on legs,  $24\frac{1}{2}$  inches. Width over all, 34 inches. Depth inside, 19 inches.

Size of tub (length over all)	5 ft.	$5\frac{1}{2}$ ft.	6 ft.
Price as described	\$87.50	\$93.50	\$104.00

If tub is finished zinc white outside, add \$16.00. If with two gold bands, add extra \$4.00.

Our extra wide, under-roll rim is a new invention. A perfect continuous enameled roll, which in appearance far surpasses the all-porcelain baths, and is incomparably superior to the ordinary roll-rim enameled iron baths.

In general appearance, beauty of outline and finish, and quality of enamel, these baths are unequaled.

When specifying or ordering, please give catalogue name and number, viz.: Sanitas Imperial Bath, Plate 122 C.



# Sanitas Venetian Bath.

WITH UNDER ROLL RIM.

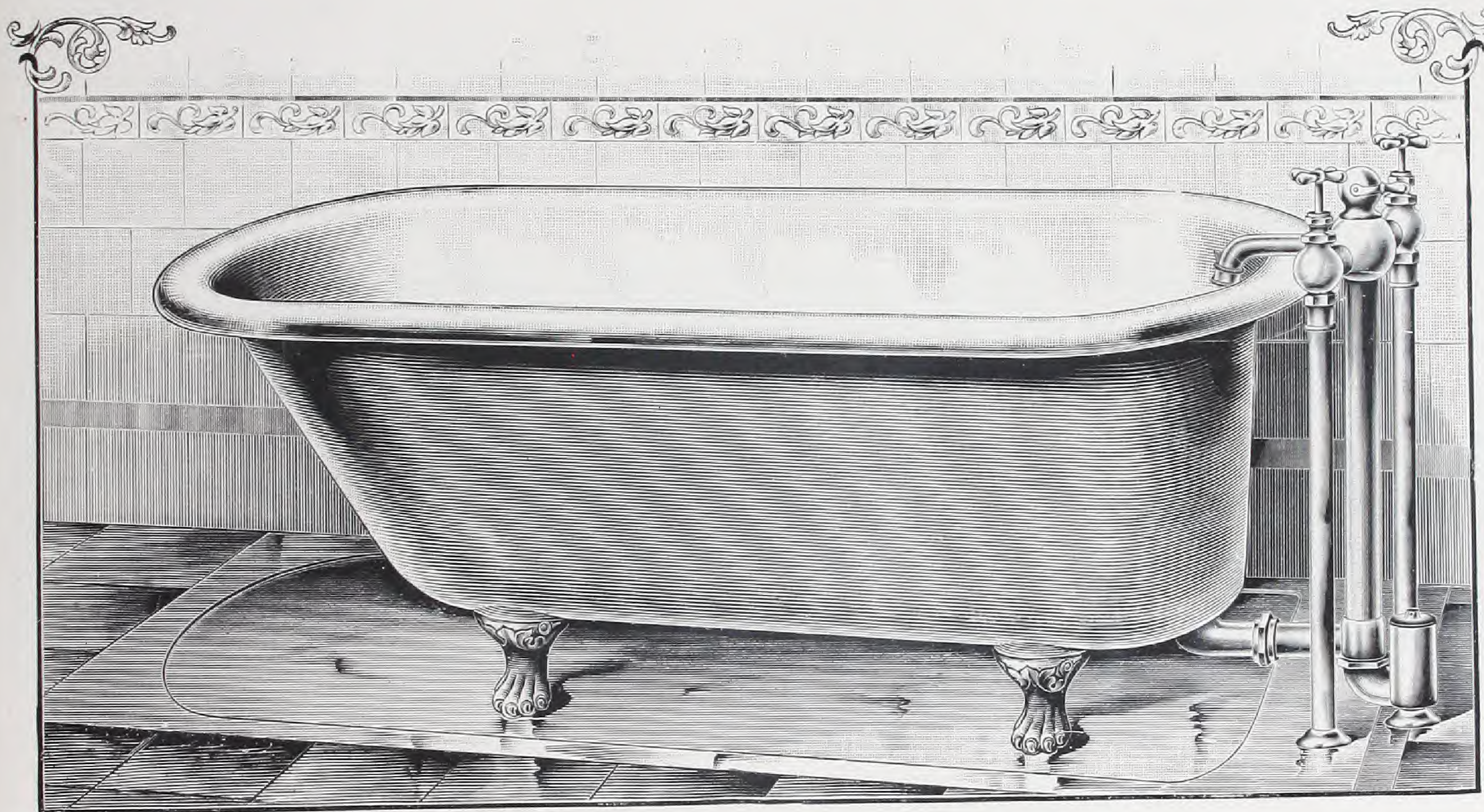


PLATE 123 C.

Consisting of Sanitas Venetian Roll-Rim Porcelain Enameled Iron Bath, with N. P. Combination Supply and N. P. Sanitas Waste, as shown, less the marble.

Height on legs, 24½ inches. Width over all, 31 inches. Depth inside, 19 inches.

Size of tub (length over all)	5 ft.	5½ ft.	6 ft.
Price as described	\$80.00	\$86.00	\$92.00

If tub is finished outside with gold bands, add \$20.00.

The Venetian Bath has an under-roll rim—a perfect continuous enameled roll. This great improvement over the ordinary roll rim is a new and original construction and is the very newest in design of a modern bath. The legs supporting bath cannot become loosened.

When specifying or ordering, please give catalogue name and number, viz.: Sanitas Venetian Bath, Plate 123 C.



## Sanitas Crown Bath.

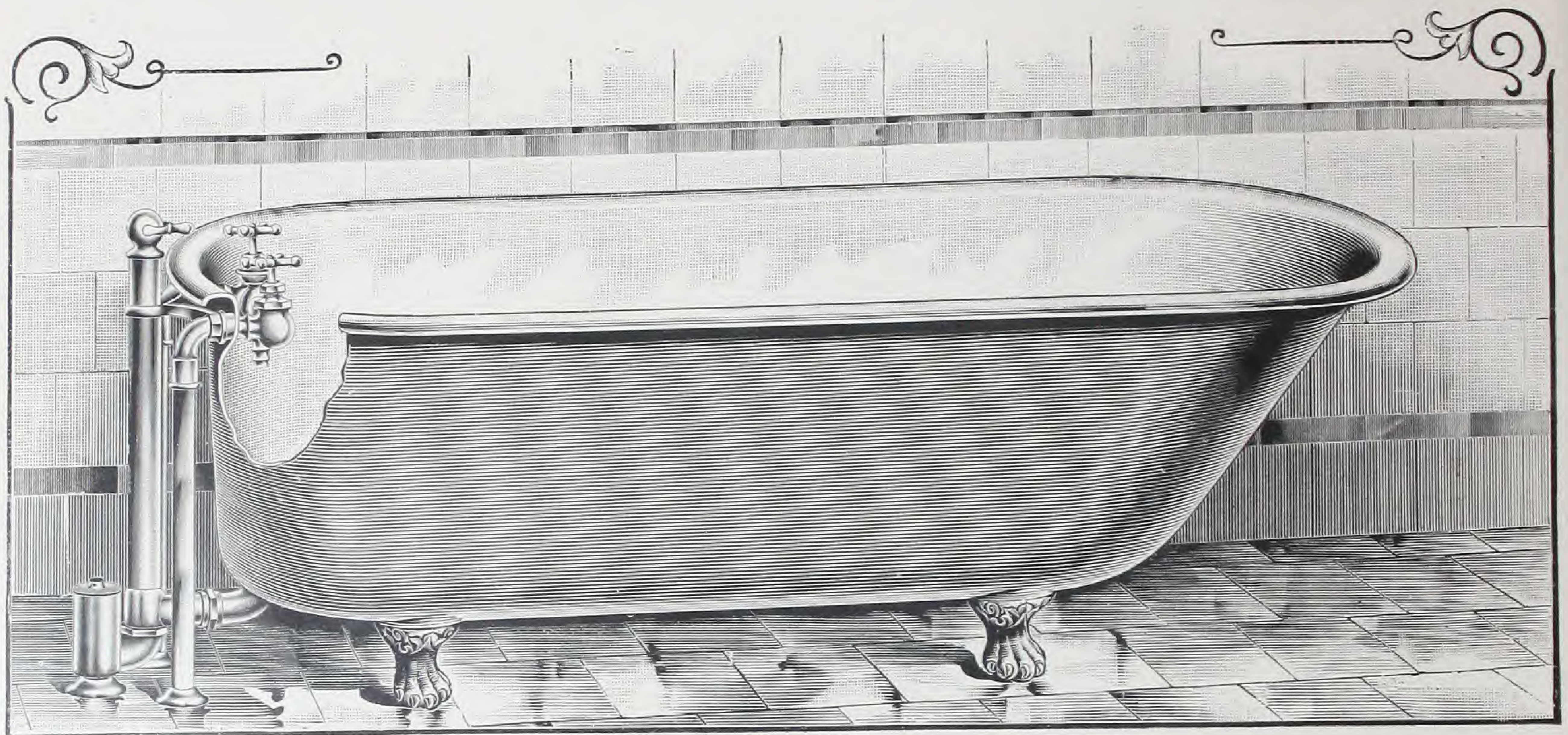


PLATE 124 C.

Consisting of White Enameled Sanitas Crown Bath, with 2 in. Enameled Rim, Nickel-plated Double Faucet, N. P. Sanitas Waste.

### DIMENSIONS AND PRICES.

Height on legs, 22½ inches. Width over all, 28 inches. Depth inside, 17 inches.

Size of tub . . . . .	4 ft.	4½ ft.	5 ft.	5½ ft.
Length over rim . . . . .	4 ft. ½ in.	4 ft. 6½ in.	5 ft. ½ in.	5 ft. 6½ in.
Length including fittings . . . . .	4 ft. 2 in.	4 ft. 8 in.	5 ft. 2 in.	5 ft. 8 in.
Price as described . . . . .	\$51.25	\$54.50	\$60.00	\$65.50

The Sanitas Crown is especially designed for use in hotels and apartment houses: it has a medium special design enameled rim, is about two inches less in height, and is wider than the ordinary bath tubs. Its shape and general outline are of entirely new design.

When specifying or ordering, please give catalogue name and number, viz.: Sanitas Crown Bath, Plate 124 C.



## Sanitas Crown Bath.

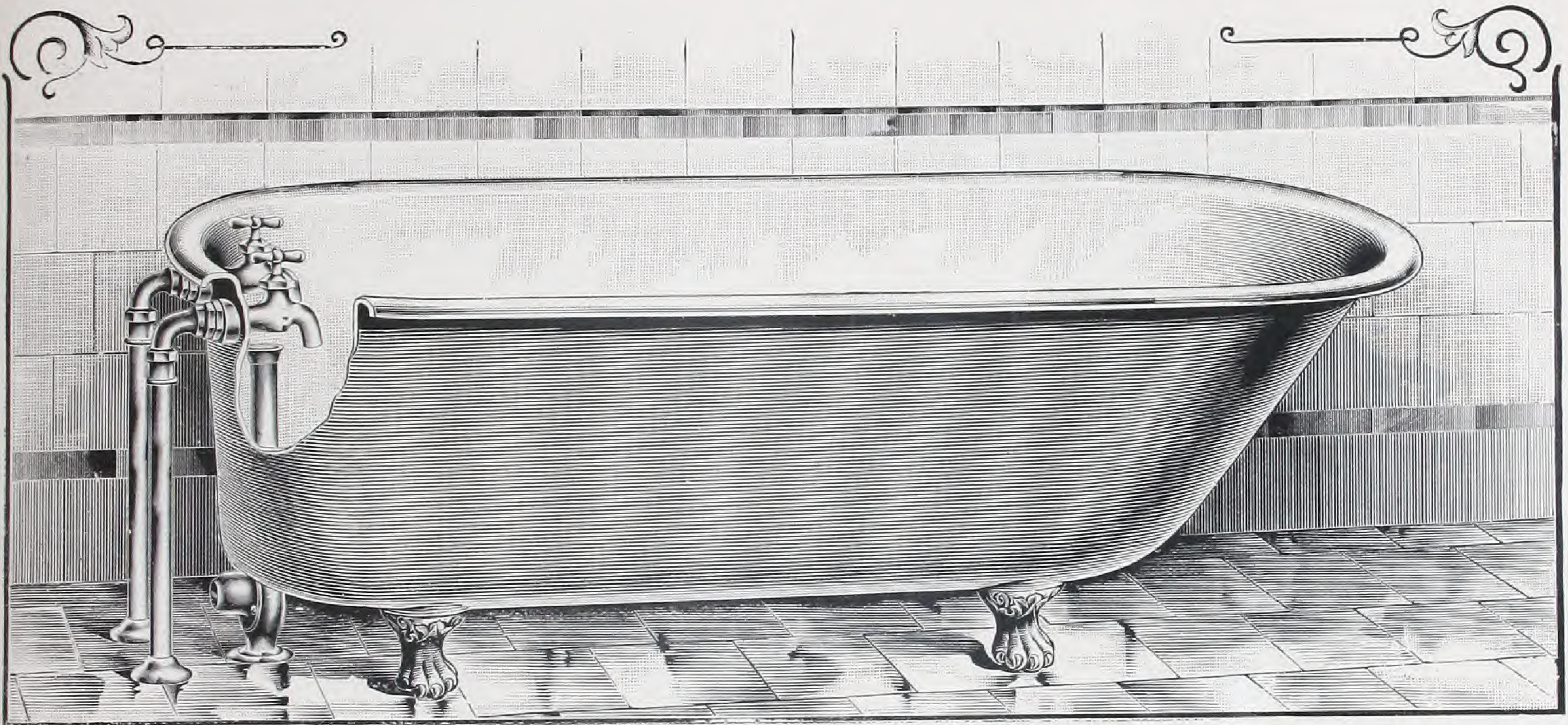


PLATE 125 C.

Consisting of Sanitas Crown Roll-Rim Porcelain Enameled Iron Tub as shown, with N. P. Smith & Anthony heavy Compression Bath Cocks, with N. P. Supply Pipes to floor, N. P. Sanitas Ideal Waste, and N. P. Sanitas Trap above floor.

### DIMENSIONS AND PRICES.

Height on legs, 22½ inches.				Width over all, 28 inches.				Depth inside, 17 inches.			
Size of tub	.	.	.	4 ft.	4½ ft.	5 ft.	5½ ft.				
Length over rim	.	.	.	4 ft. ½ in.	4 ft. 6½ in.	5 ft. ½ in.	5 ft. 6½ in.				
Length including fittings	.	.	.	4 ft. 2 in.	4 ft. 8 in.	5 ft. 2 in.	5 ft. 8 in.				
Price as described	.	.	.	\$45.25	\$48.50	\$54.00	\$59.50				

The Sanitas Crown is especially designed for use in hotels and apartment houses; it has a medium special design enameled rim, is about two inches less in height, and is wider than the ordinary bath tubs. Its shape and general outline is of entirely new design.

When specifying or ordering, please give catalogue name and number, viz.: Sanitas Crown Bath, Plate 125 C.



## Sanitas Crown Bath.

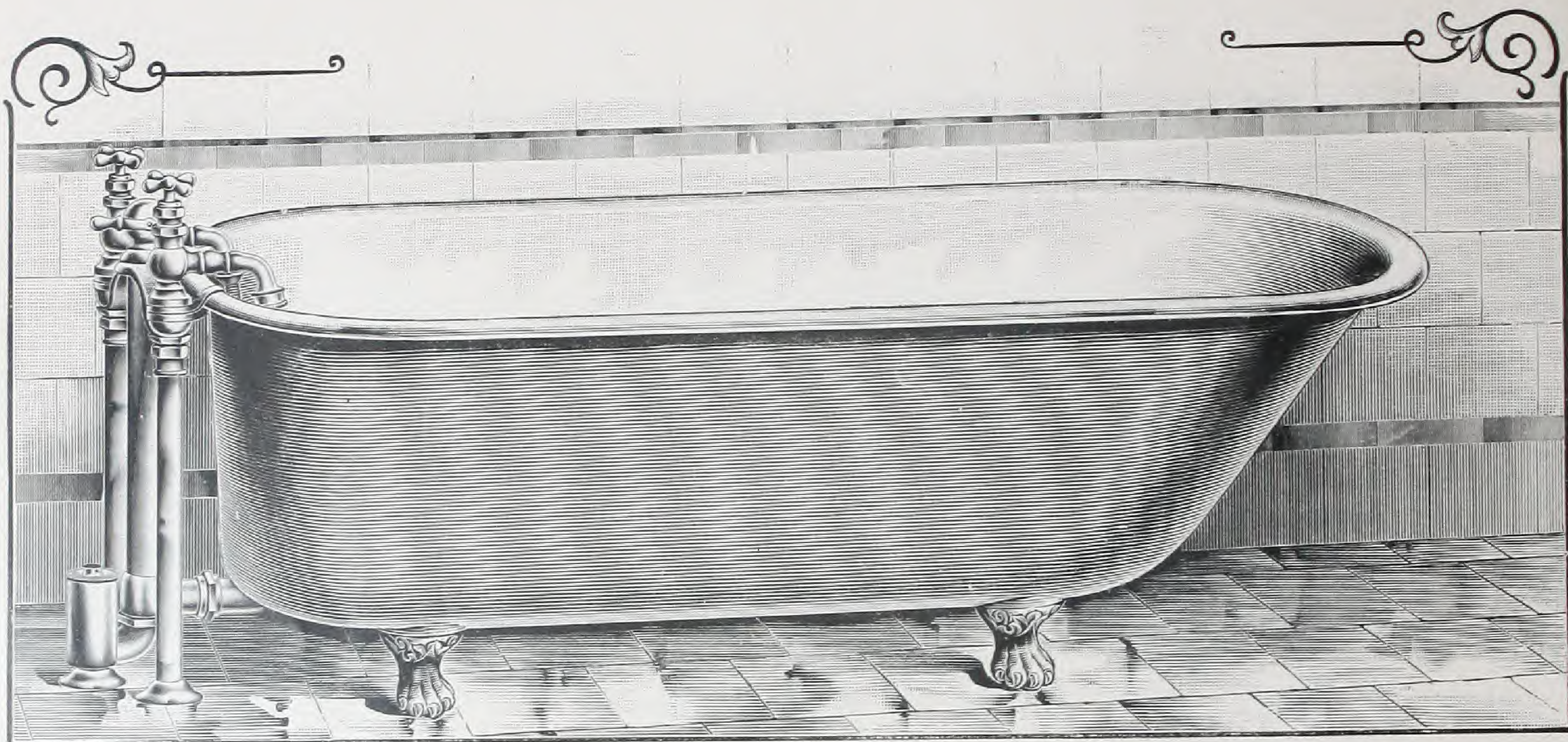


PLATE 126 C.

Consisting of Sanitas Crown Roll-Rim Porcelain Enameled Iron Bath, as shown, with N. P. Bath Cocks, N. P. Supplies to floor, and N. P. Sanitas Waste.

### DIMENSIONS AND PRICES.

Height on legs, 22½ inches. Width over all, 28 inches. Depth inside, 17 inches.

Size of tub . . . . .	4 ft.	4½ ft.	5 ft.	5½ ft.
Length including fittings . . . . .	4 ft. 2 in.	4 ft. 8 in.	5 ft. 2 in.	5 ft. 8 in.
Price as described . . . . .	\$51.25	\$54.50	\$60.00	\$65.50

The Sanitas Crown is especially designed for use in hotels and apartment houses; it has a medium special design enameled rim, is about two inches less in height, and is wider than the ordinary bath tubs. Its shape and general outline are of entirely new design.

When specifying or ordering, please give catalogue name and number, viz.: **Sanitas Crown Bath, Plate 126 C.**



## Sanitas Regal Bath.

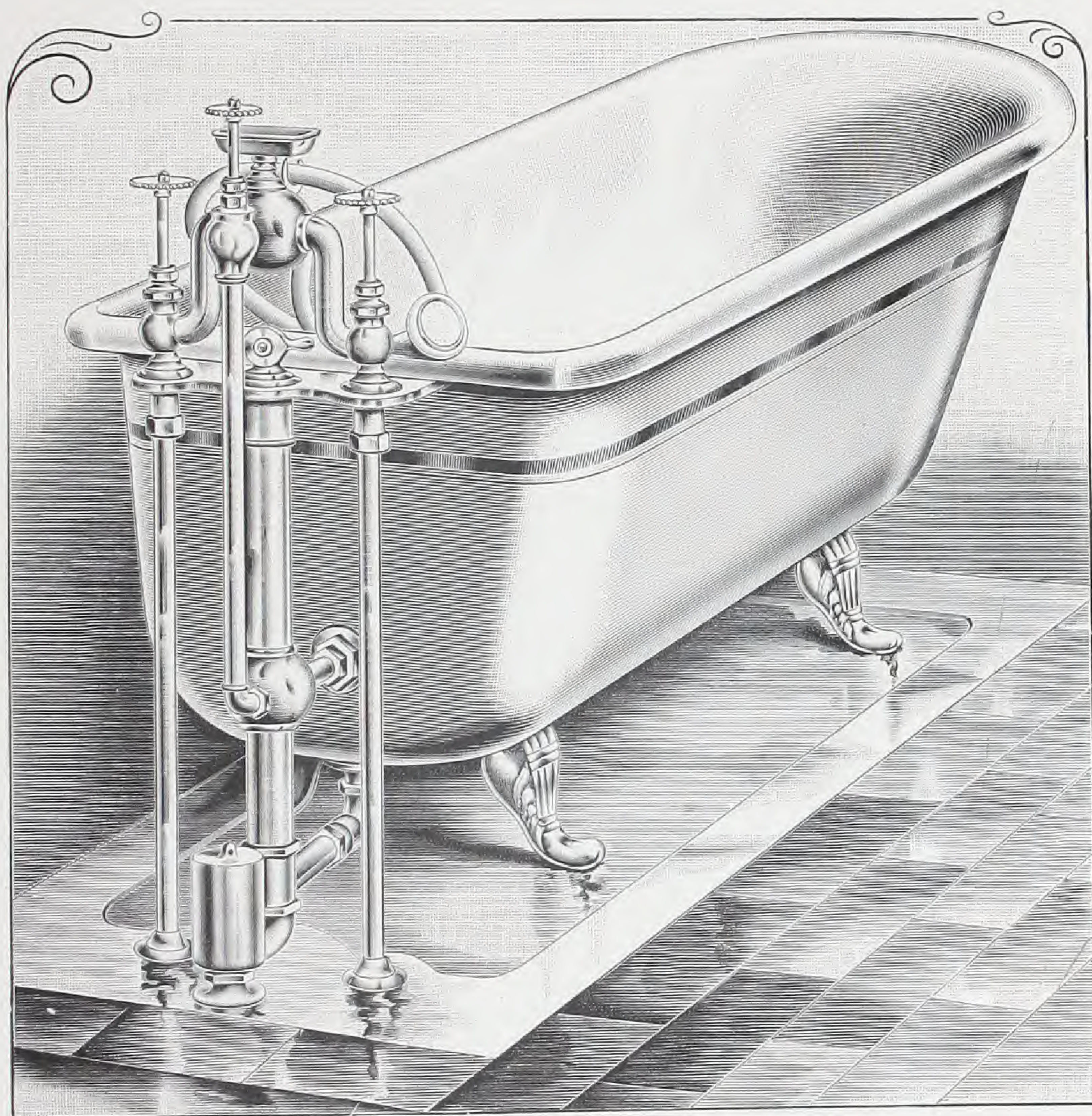


PLATE 127 C.

Consisting of Sanitas Roll-Rim Porcelain Enameled Iron Bath; N. P. Hot and Cold Water Fixtures, with large Mixer; N. P. Hand Spray, and Shampoo Attachment; N. P. Sanitas Waste and Overflow, N. P. Soap Cup, and N. P. Trap above Floor. Decorated in White Enamel with Gold Bands.

	4½ ft.	5 ft.	5½ ft.
Price as shown, less floor slab,	\$112.00	\$117.00	\$123.00
Deduct if outside decoration is not wanted	.	.	20.00
Deduct if N. P. trap above floor is not wanted	.	.	5.00

When specifying or ordering, please give catalogue name and number, viz.: Sanitas Regal Bath, Plate 127 C.



# Sanitas Regal Bath.

WITH TURKISH SHOWER.



PLATE 128 C.

Consisting of Sanitas Roll-Rim Porcelain Enameled Iron Bath, decorated in White Enamel with Gold Band. N. P. Hot and Cold Water Mixer; Combination Low-down Supply and Sanitas Waste; N. P. Head Shower; N. P. Hand Douche and Needle Spray; Rubber Curtain, and Bath Seat, and N. P. Trap above floor.

	4½ ft.	5 ft.	5½ ft.
Price as shown, less floor slab,	\$227.00	\$232.00	\$238.00
Deduct if outside decoration is not wanted	.	.	20.00
Deduct if Needle Spray is not wanted	.	.	80.00
Deduct if N. P. trap is not wanted	.	.	5.00

When specifying or ordering, please give catalogue name and number, viz.: Sanitas Regal Bath, Plate 128 C.



## Sanitas Royal Bath.

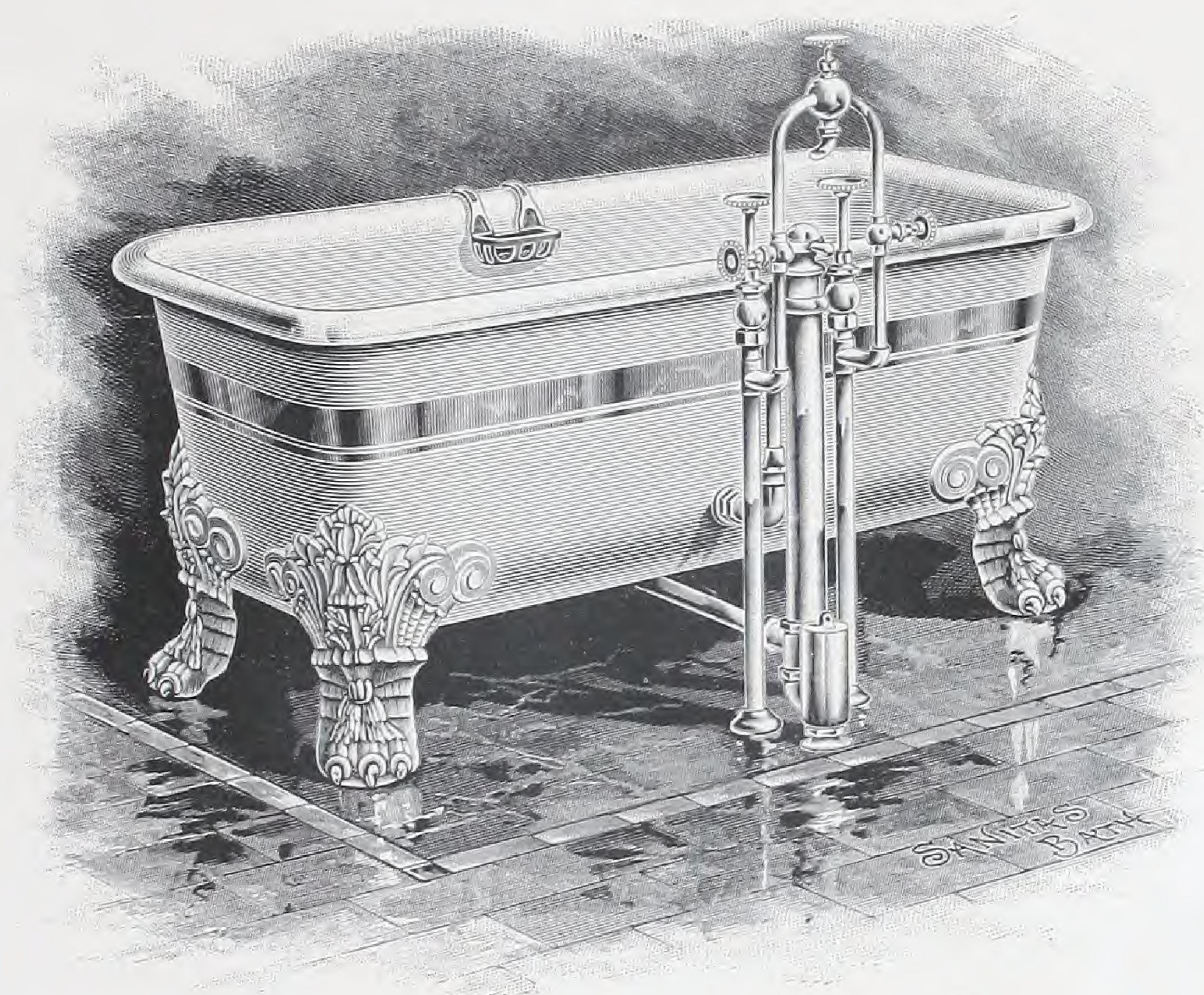


PLATE 129 C.

Consisting of Sanitas Roll-Rim Porcelain Enameled Iron Roman Bath Tub, decorated in White Enamel, with Gold Bands; with N. P. Combination Low-down Supply; N. P. Sanitas Waste, with N. P. Trap above floor; N. P. Sanitas Hand Shower, with Mixing Chamber.

	4½ ft.	5 ft.	5½ ft.
Price as shown and described,	\$117.00	\$122.00	\$127.00
Deduct if outside decoration is not wanted	.	.	20.00
Deduct if N. P. trap is not wanted	.	.	5.00

When specifying or ordering, please give catalogue name and number, viz.: Sanitas Royal Bath, Plate 129 C.



## Sanitas Royal Bath.

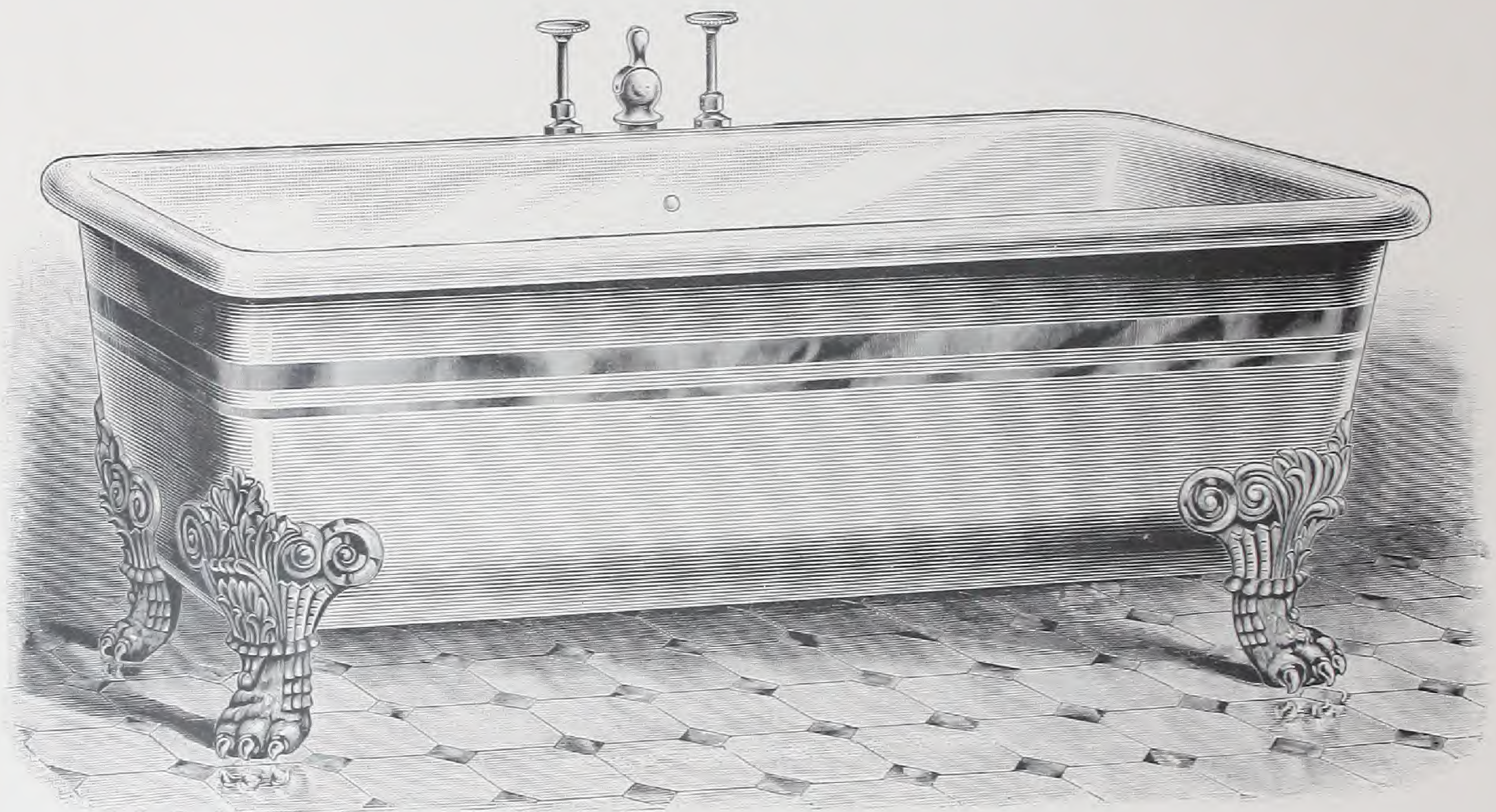


PLATE 130 C.

Consisting of Sanitas Roll-Rim Porcelain Enameled Iron Bath Tub, decorated in White Enamel, with Gold Bands; with N. P. Combination Low-down Supply; with N. P. Sanitas Waste. The Fixtures are the same as shown in Plate 131 C.

	4½ ft.	5 ft.	5½ ft.
Price as shown and described,	\$102.00	\$107.00	\$112.00
Deduct if outside decoration is not wanted . . . . .			20.00
Add if N. P. bath trap above the floor is desired . . . . .			5.00

When specifying or ordering, please give catalogue name and number, viz.: Sanitas Royal Bath, Plate 130 C.



# Sanitas Premier Bath.

WITH WIDE ROLL-RIM.



PLATE 131 C.

Consisting of Sanitas Premier Roll-Rim Porcelain Enameled Iron Bath, as shown, with N. P. Combination Low-down Supply, and N. P. Sanitas Waste.

## DIMENSIONS.

Width 27 inches, Depth 16½ inches, Height 22 inches.

	4½ ft.	5 ft.	5½ ft.
Price as described . . . . .	\$95.00	\$100.00	\$105.00
Length over rim,	5 ft. 3 in.	5 ft. 9 in.	6 ft. 3 in.

If without exterior decoration, deduct \$20.00.

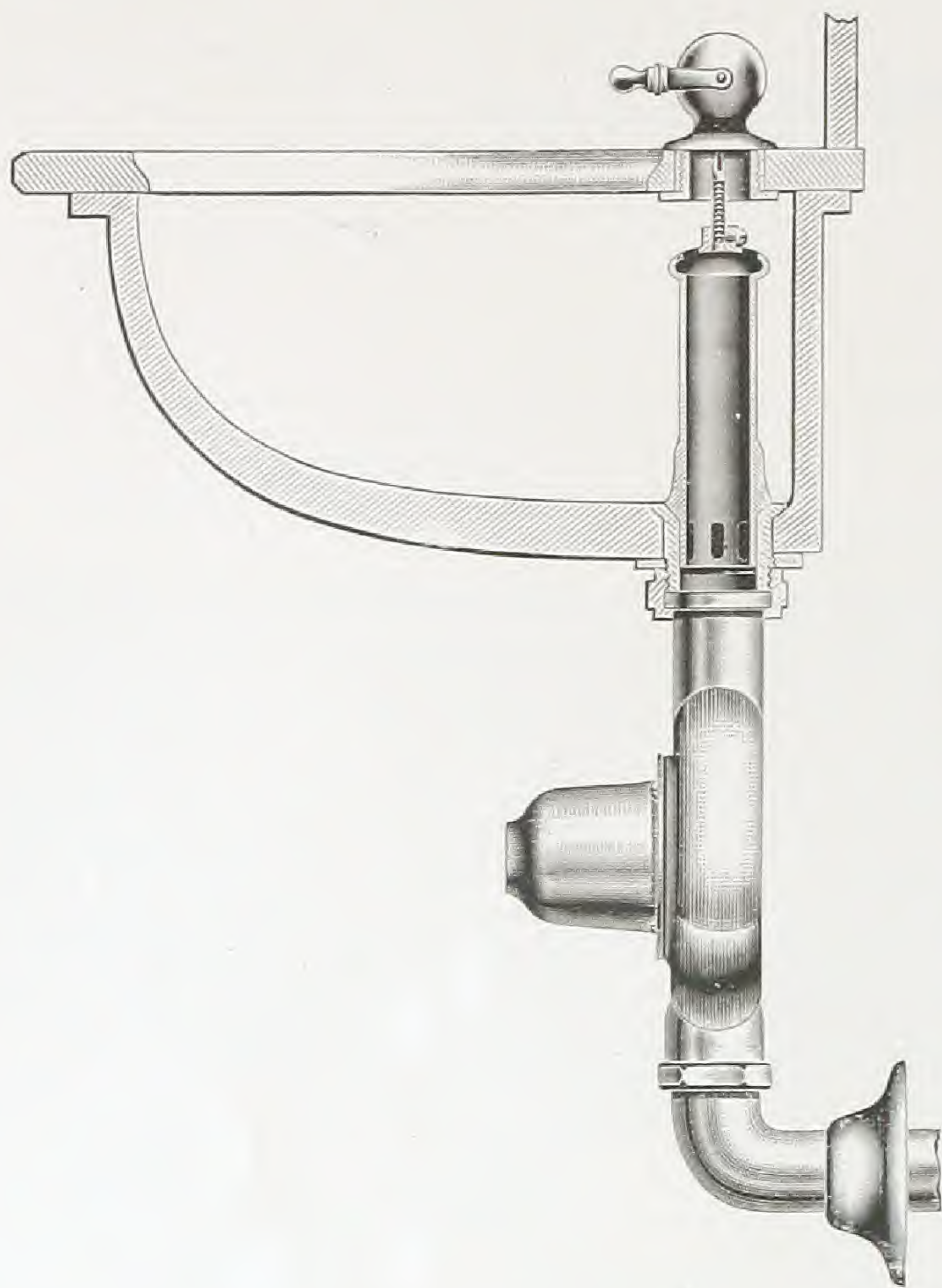
The Premier is an extra wide, shallow Bath, it being in width, four inches more, and in depth, two inches less, than the regular rolled-rim bath, making it much more convenient to get in and out of than the ordinary bath tub.

When specifying or ordering, please give catalogue name and number, viz.: Sanitas Premier Bath, Plate 131 C.



## The Principle of the Sanitas Lavatories.

.....



The Sanitas Lavatories are constructed on the principle of the flush tank, the basin corresponding to the flush tank of a water-closet. The instant the water in the basin is released, it fills the waste pipes full bore, thoroughly scouring and cleaning them by the rapidity of the flush.

One of the weakest spots in household plumbing is in the waste pipes connecting with wash basins and closets. Ordinary fixtures utterly fail to give immunity from dangerous gases at this spot. The Sanitas Appliances give the highest known protection at these hidden sources of danger, and make the use of these fixtures in chambers or sleeping rooms entirely safe.

The sanitary safety thus secured is equally desirable in all apartments, and has commended the Sanitas Basin and Trap to leading sanitarians and specialists.

### Mr. W. Paul Gerhard, C.E.,

The well-known expert, and popular writer and authority on Sanitary Engineering, in an article in "Good Housekeeping," in 1886, describes the Sanitas Basin so clearly and concisely that we give it as the best description we can think of. Mr. Gerhard says:—

"Much the best form of basin of which I have knowledge is the stand-pipe outlet basin, or Sanitas Basin, manufactured by the Sanitas Manufacturing Company. This fixture, in my judgment, will soon supersede all former devices, as it has so many superior features of simplicity, convenience and sanitary construction.

"Every part of the basin—of its fittings and passages, is visible and easily accessible, and is entirely free from fouling chambers or easily befouled corners; and basin and all may be kept clean from top to bottom without removing the basin or any part of it. To sum up, the Sanitas Basin offers the following advantages: Through it waste water is completely and rapidly removed, a quick discharge as from a small flush tank effected, filling the pipe full bore, and the trap and waste pipes are thoroughly scoured."

FOR FURTHER DETAILS SEE OUR "SANITAS HAND-BOOK."



# Sanitas Lavatory.

WITH EMBOSSED BASIN.

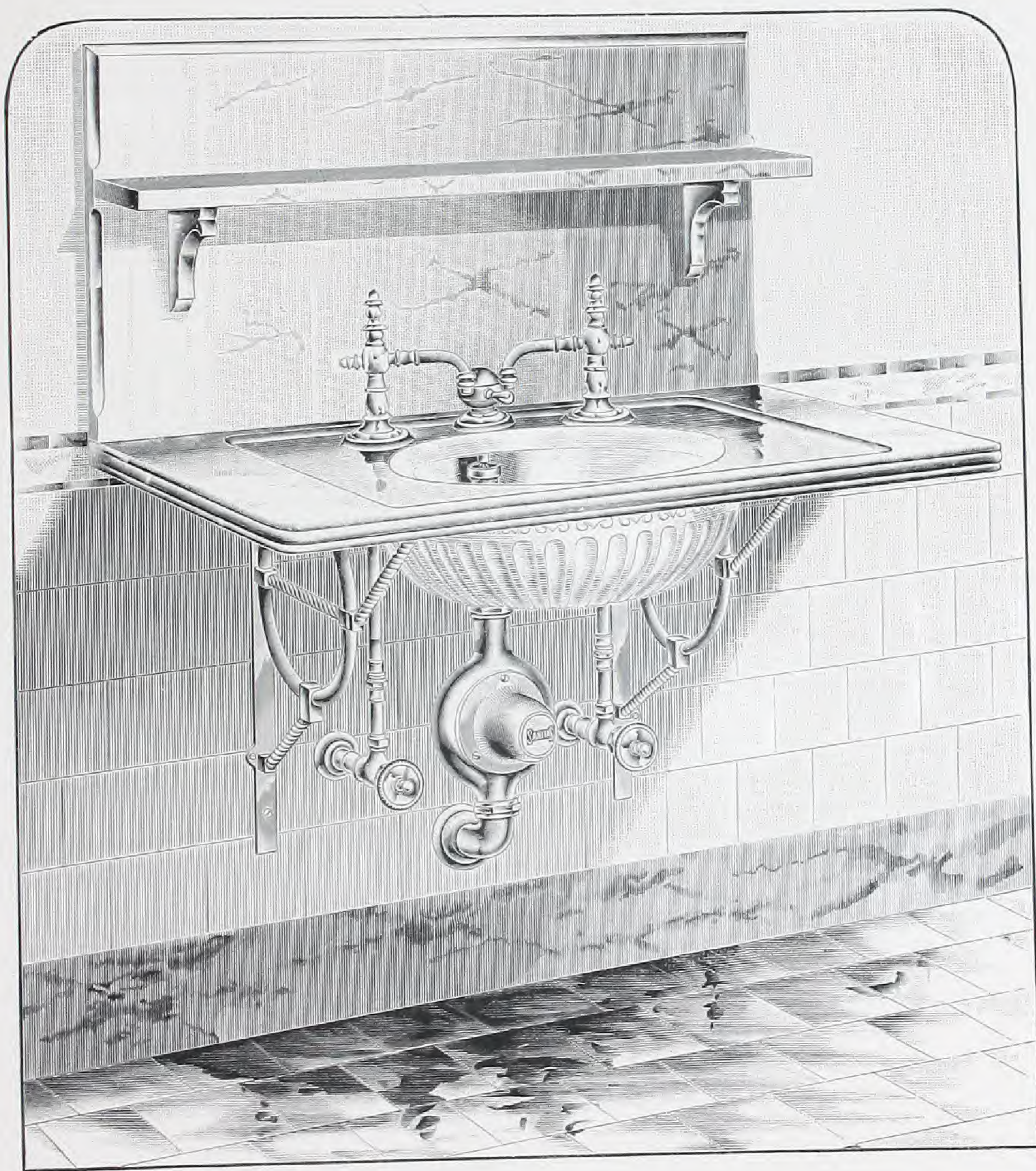


PLATE 140 C.

Consisting of 15 x 19 Oval Embossed Sanitas Basin, N. P. Sanitas Lift, and Standing Waste; No. 216 Swing Basin Cocks; No. 11 a N. P. Sanitas Brass Trap, with Wall Waste; No. 234 Check Cocks; No. 235 Lavatory Brackets, Dished 1 1/4 inch Italian Marble Slab, 36 x 22 inches, with 18 in. back, with Shelf.

Price as shown, less marble	.	.	.	.	.	.	\$41.50
Price of marble	.	.	.	.	.	.	28.50



## Sanitas Lavatory.



PLATE 141 C.

Consisting of 15 x 19 Oval Sanitas Basin, with No. 1 N. P. Sanitas Lift, and Overflow; No. 216 N. P. Extra Heavy Swing Basin Cocks; No. 11 a N. P. Brass Sanitas Trap with waste to wall; N. P. Cock Supplies, with Check Cocks; N. P. Brackets, 1  $\frac{1}{4}$  in. counter-sunk Italian Marble Slab 36 x 22 inches, with 18 in. back.

Price as shown, less marble	\$40.50
Price of marble	22.50



# Sanitas Lavatory.

WITH EMBOSSED BASIN.

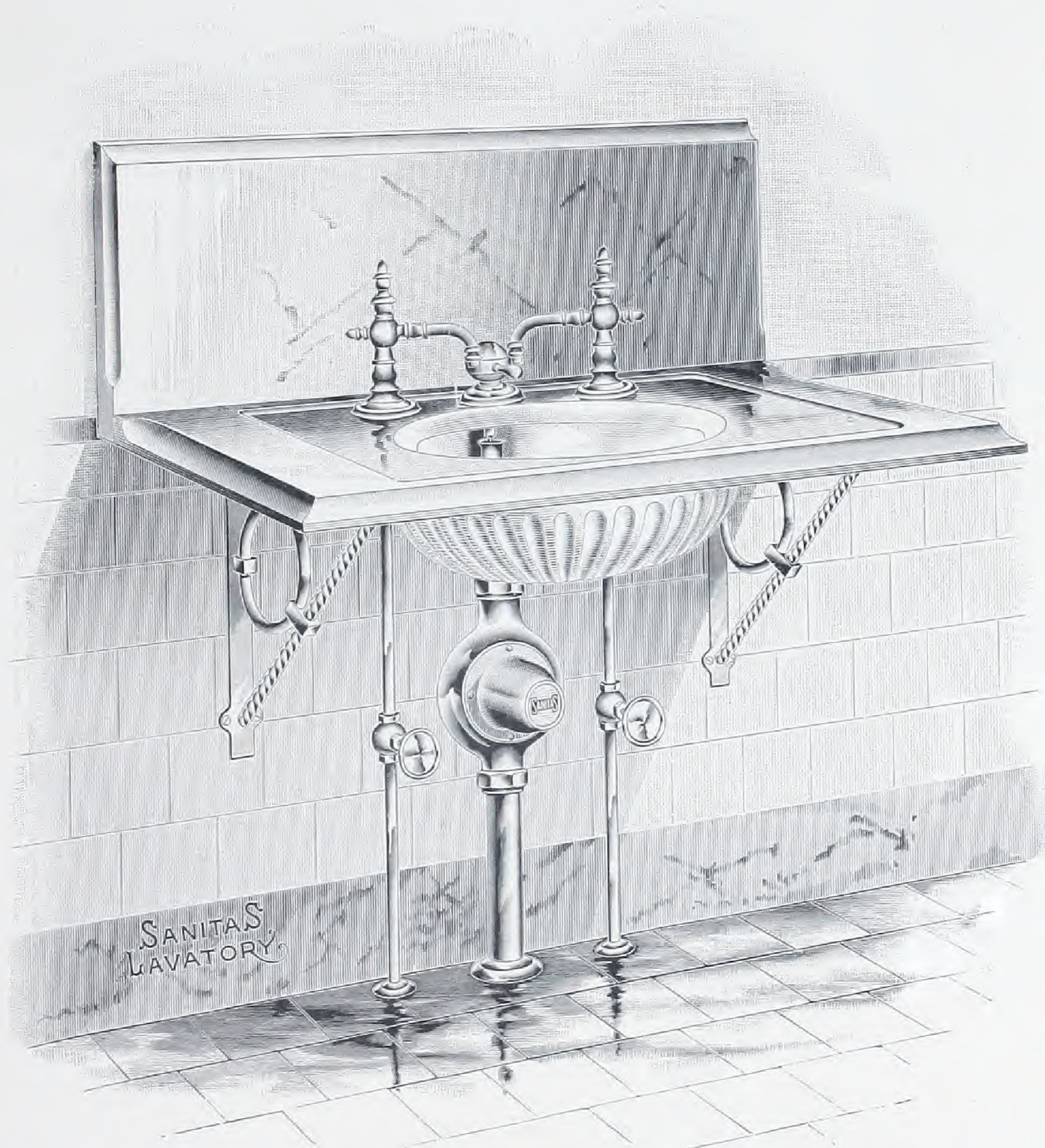


PLATE 142 C.

Consisting of Sanitas Oval Embossed Basin, with N. P. Lift and Waste; No. 216 N. P. Swing Basin Cocks; No. 11 a N. P. Sanitas Brass Trap, with floor waste; N. P. Floor Supplies, with Check Cocks; No. 236 N. P. Lavatory Brackets,  $1\frac{1}{4}$  in. Italian Marble Slab, 30 x 22 inches, with 16 in. back.

Price as shown, less marble	\$40.50
Price of marble	15.50



## Sanitas Lavatory.

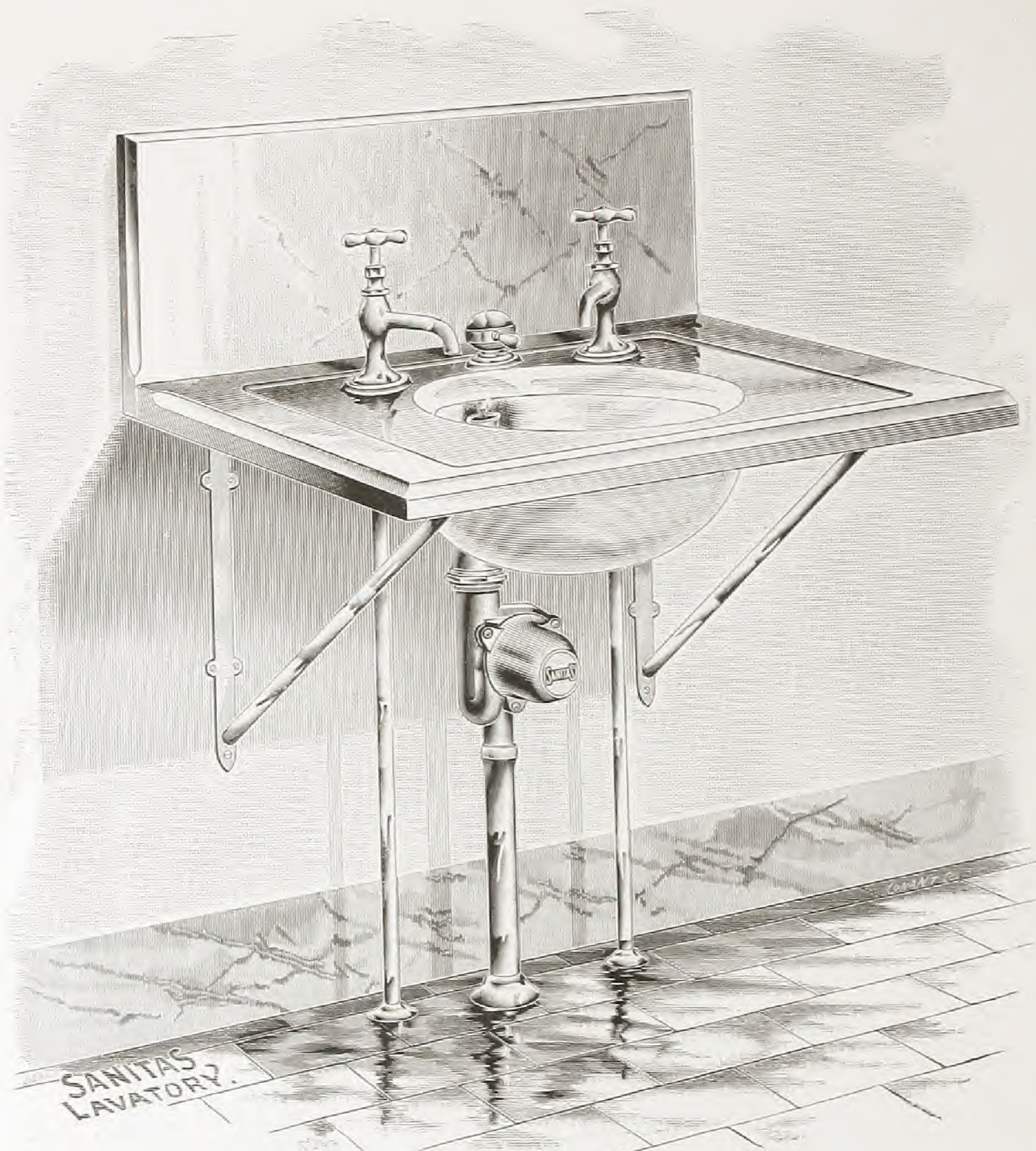


PLATE 143 C.

Consisting of 16 in. Round Sanitas Basin, with Sanitas Lift, and either Metal or Porcelain Standing Waste; No. 219 Compression Basin Cocks, with floor supply; No. 10 Sanitas White Metal Trap, and 30 x 21 Italian Marble Slab and 12 in. back, with Brass Brackets. All fixtures Nickel-plated.

Price as shown, less marble	.	.	.	.	.	\$27.25
Price of marble	.	.	.	.	.	13.50



## Sanitas Corner Lavatory.



PLATE 144 C.

Consisting of Sanitas 15 x 19 in. Oval Basin, with N. P. Sanitas Lift and Overflow, N. P. Self-closing Basin Cocks: No. 11 a N. P. Brass Sanitas Trap, with floor waste; N. P. Cock Supplies, with Air Chambers; No. 236 N. P. Brackets, 9 x 11 inches; 1 1/4 in. Italian Marble Slab, 22 x 24 inches, with 18 in. backs.

Price as shown, less marble	.	.	.	.	.	\$36.00
Price of marble	.	.	.	.	.	19.00



# Ideal Lavatory.

WITH SANITAS LIFT AND OVERFLOW.



PLATE 145 C.

Consisting of 15 x 19 Oval Sanitas Basin, N. P. Sanitas Lift and Standing Waste; No. 219 N. P. Basin Cocks, with N. P. Cock Supplies, from wall; N. P. Ideal Brass Trap, vented, with Wall Waste; N. P. Brass Brackets; Italian Marble  $1\frac{1}{4}$  in. Slab, 30 x 22 inches, with 16 in. back and left hand end.

Price as shown, less marble . . . . .	\$25.00
Price of marble . . . . .	20.00



## Sanitas Lavatory.

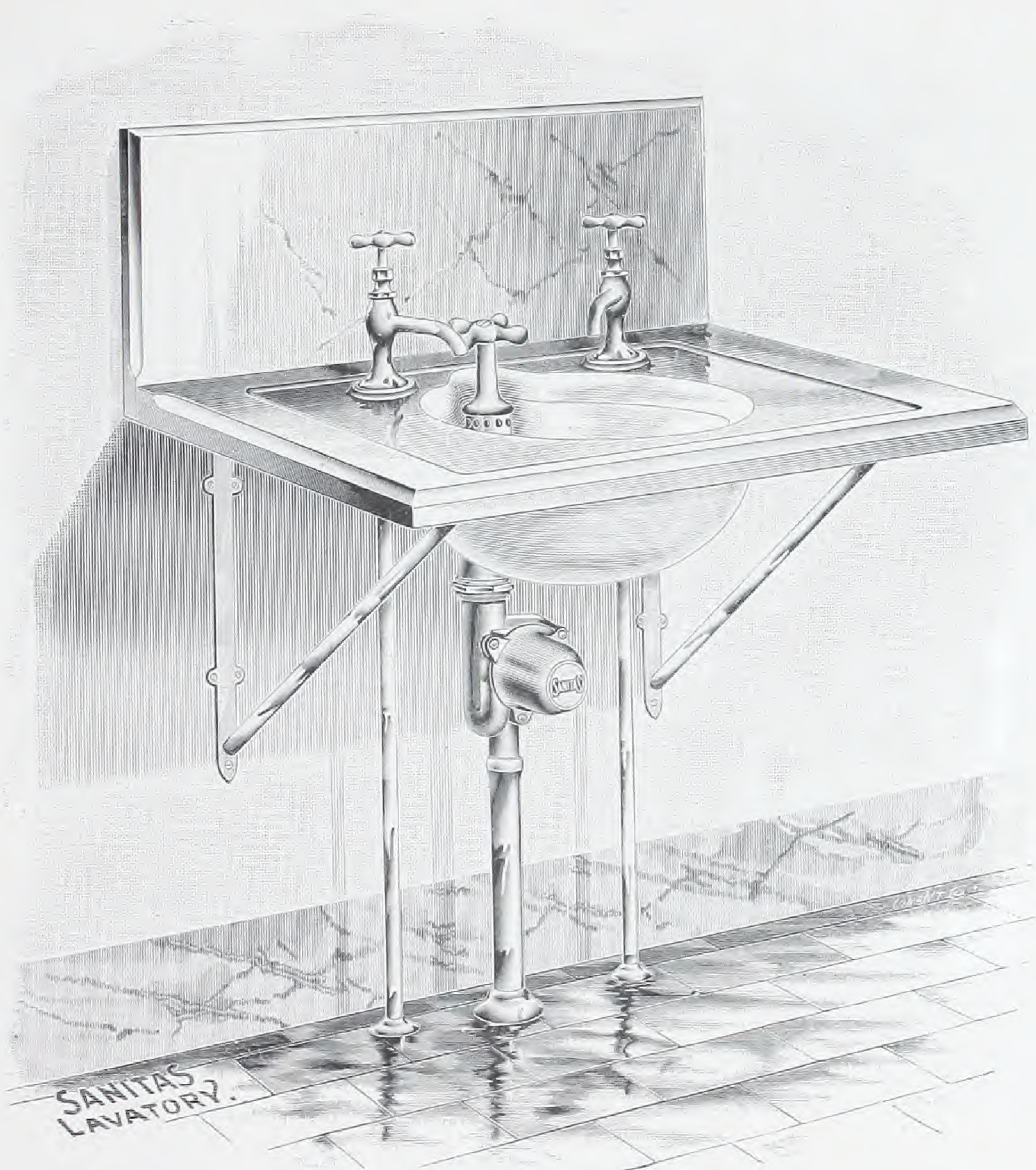


PLATE 146 C.

Consisting of 16 in. Round Sanitas Basin, with N. P. Ideal Waste; No. 219 N. P. Compression Basin Cocks, with floor supplies; No. 10 Sanitas N. P. Trap, with floor waste; No. 238 N. P. Brackets; 30 x 21 in. Italian Marble Slab, with 12 in. back.

Price as shown, less marble	\$24.00
Price of marble	13.50



## Sanitas Lavatory.



PLATE 147 C.

Consisting of 15 x 19 in. Oval Sanitas Basin, with N. P. Ideal Waste; No. 219 N. P. Compression Basin Cocks, with wall supplies, N. P. Ideal Vented Trap, with wall waste; No. 240 N. P. Bracket; 30 x 22 in. Italian Marble Slab, with 16 in. back and left hand end.

Price as shown, less marble	.	.	.	.	.	\$22.00
Price of marble	.	.	.	.	.	20.00



## Sanitas Oval Valve Basin.

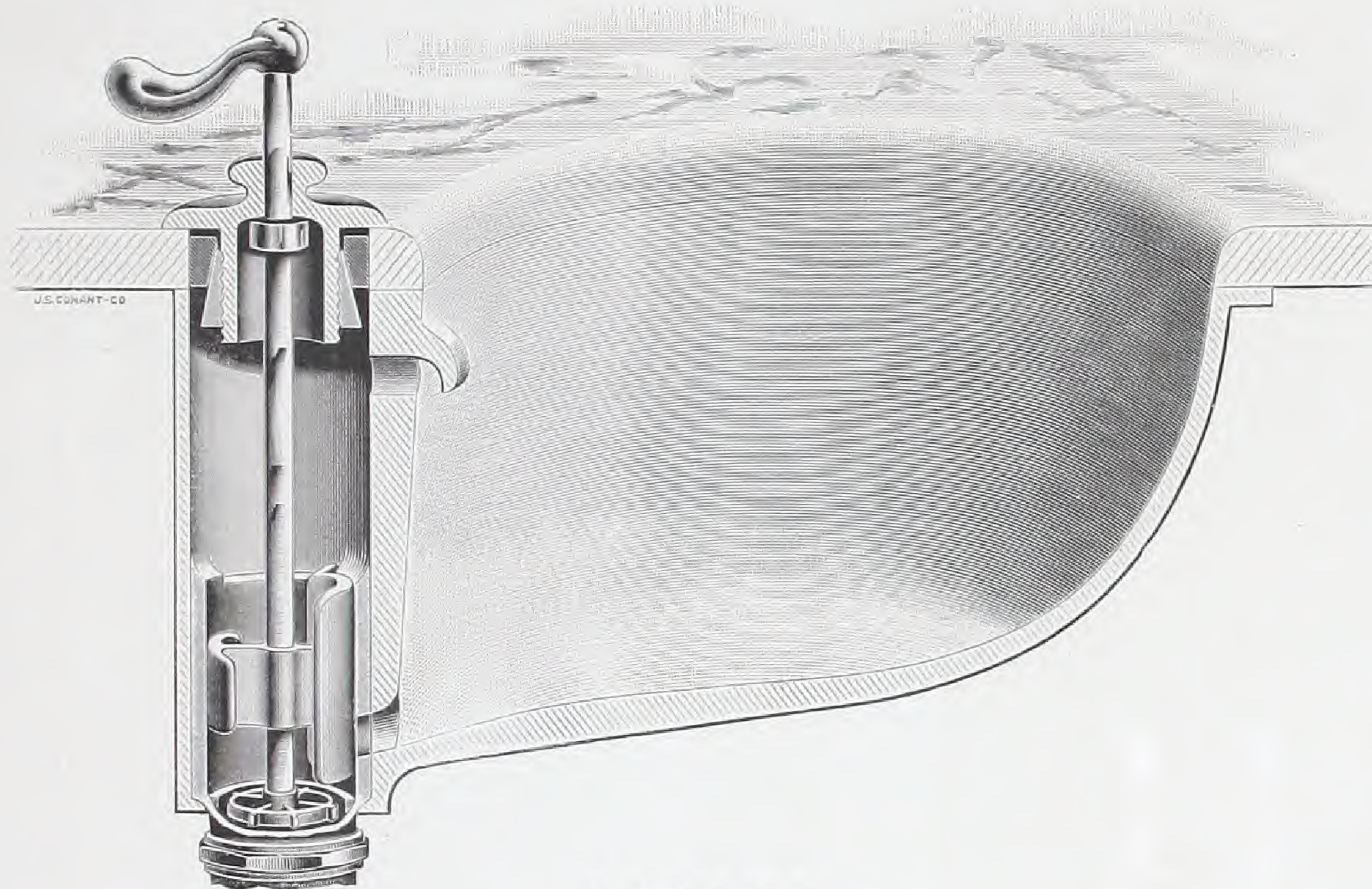


PLATE 148 C.

This is an entirely novel departure in basin construction. The simplest form of gate Valve opens or closes the outlet at the side or back of the basin, and this Valve comes close against the earthenware and thus totally excludes those concealed waste passages which are formed in all other side or rear outlet basins, wherein the clean water is befouled before use.

The bottom of the basin is left perfectly smooth and intact, and the overflow passage behind the Waste Valve is accessible to the hand from above through the basin slab.

In this basin, which is one of the latest and most important additions to sanitary plumbing appliances, we have absolute cleanliness and safety, combined with absolute simplicity.

This basin can be used in place of any of the 15 x 19 basins in preceding lavatories, without extra charge.

Price of 15 x 19 Oval Sanitas Valve Basin, with N. P. Valve, \$12.00.



## The Sanitas Premier Basin.

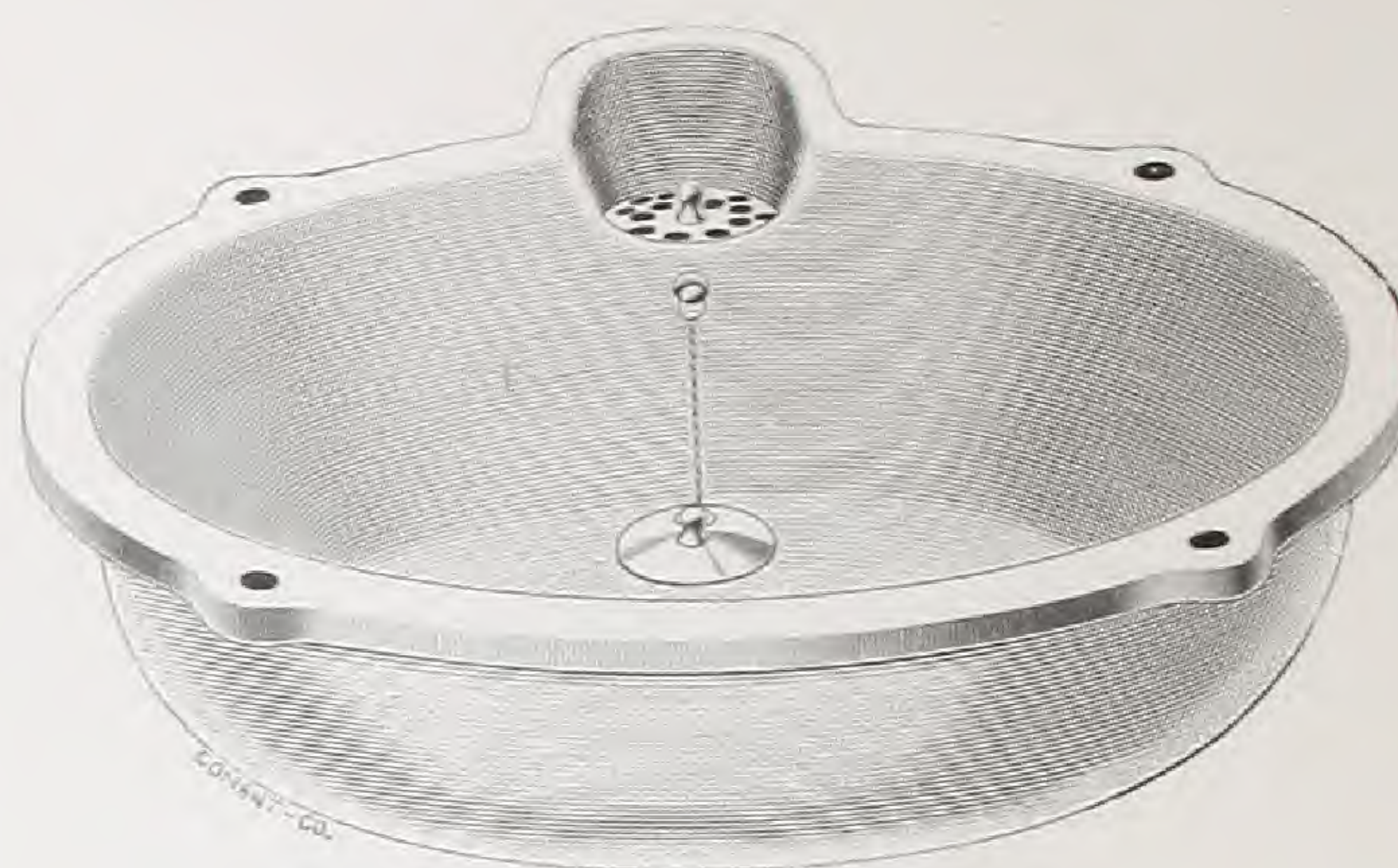
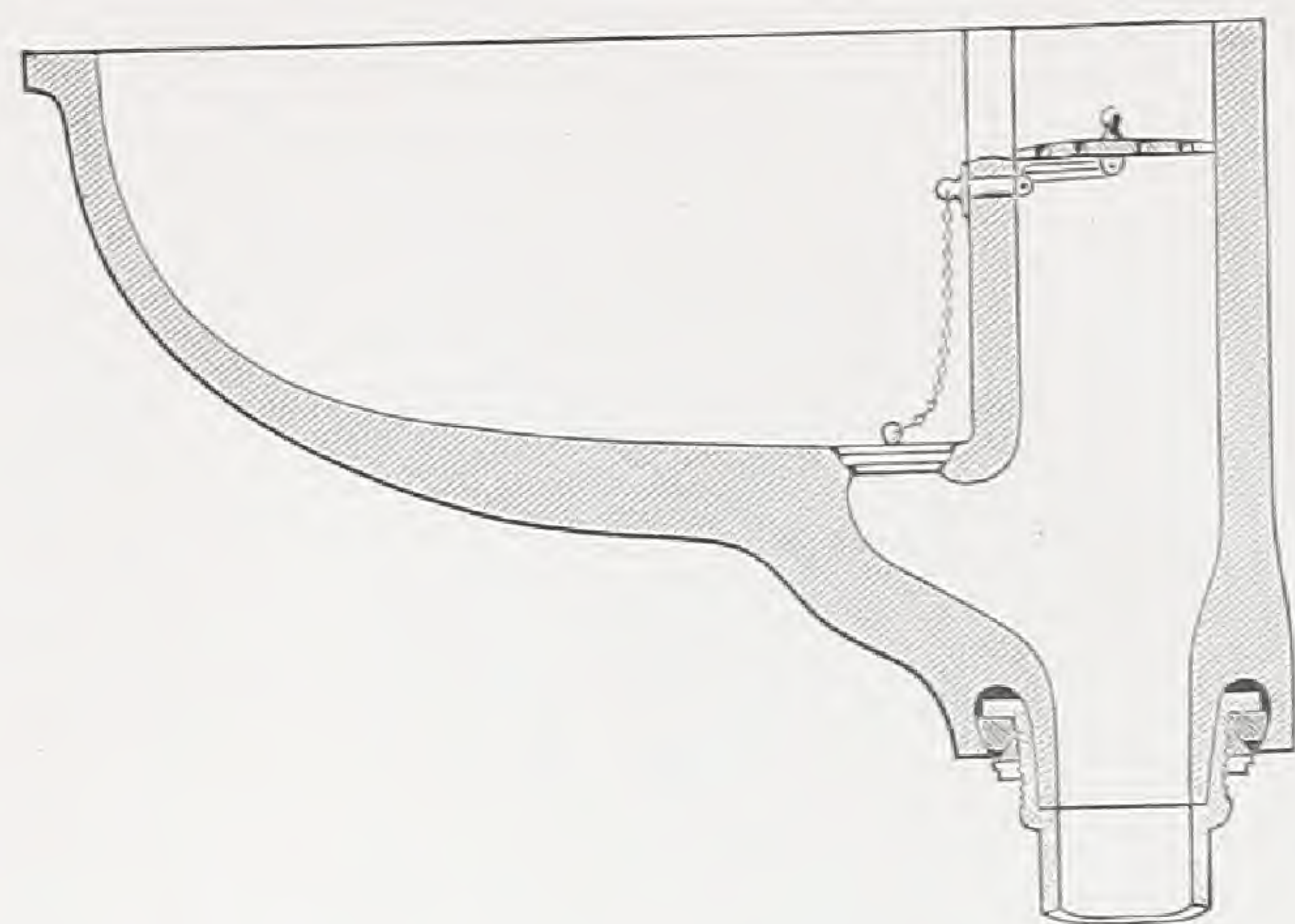


PLATE 149 C.

The special features of this basin are its simplicity of construction, accessibility of all parts for cleaning, and the extra thickness of the earthen ware. Being operated by an improved form of plug and chain—the simplest method known—it has no complicated fixtures to get out of order, or fail to work at the proper time.

The recess at back of basin is made large enough to admit the hand down to the trap, thus making all parts of the basin easy of access for cleaning. By removing the strainer an unobstructed view may be had of the entire recess of the basin to the water in the trap.

The Premier Basin is made by a new patented process, by which we get a thickness on the bottom of  $1\frac{1}{4}$  inches, tapering to  $\frac{3}{4}$  inch at the sides of basin. This feature will appeal to property owners, as there will be practically no basins to replace through breakage, making the Premier the safest and most desirable basin to use in offices and public buildings, school houses, or any place where earthen ware is liable to rough usage.

The extra large water way, and the freedom from obstruction of the waste, insures the quick discharge of the contents of the basin and the thorough scouring of the trap and waste pipe.

Sanitarians will at once see the thorough sanitary features of this basin. It has no passages to be befouled, has all its internal parts visible and accessible, and is made of the heaviest porcelain ever used in a basin.

Price 15 x 19 Oval Sanitas Premier Basin, with N. P. Fixtures as shown, \$12.00.



## The Sanitas Slop Sink.

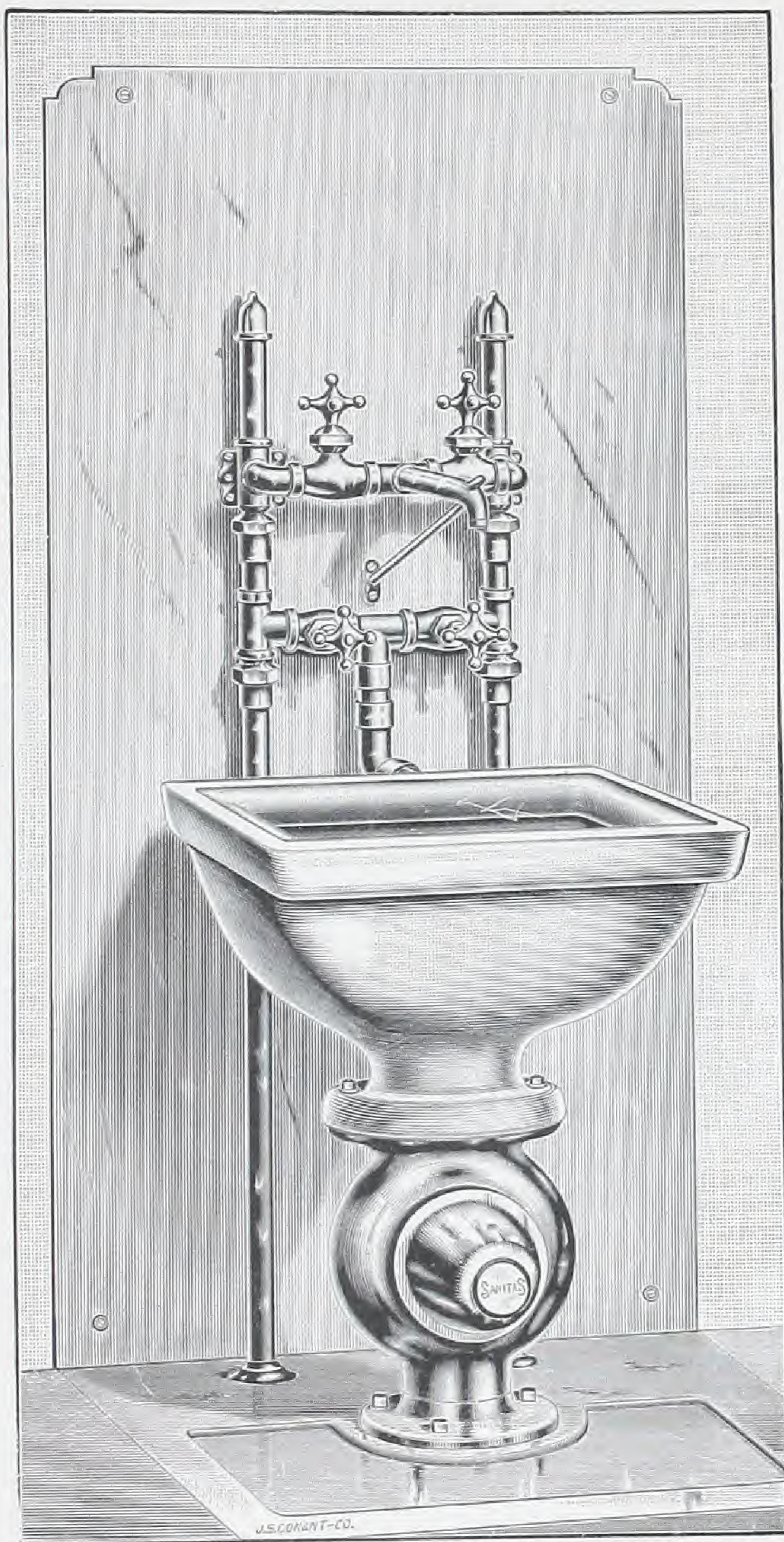


PLATE 156 C.

Consisting of Sanitas Flushing Rim Porcelain Slop Sink, Hot and Cold Water Supply to Spigot and Flushing Rim, with 3 in. Sanitas Brass Trap; all Brass Work Nickel-plated.

Price as shown, less marble . . . . .	\$58.00
Same as shown, except that the flush to sink is from paneled hard wood tank, with N. P. flush pipe and slip joint . . . . .	57.00
Enameled iron slop sink, with N. P. flush rim, N. P. hot and cold water supply as shown, and 3 in. Sanitas iron trap . . . . .	50.00



# The Sanitas Kitchen Sink and Flush Pot.

.....

So constructed that it must always do its work correctly and thoroughly, and cannot be made to do otherwise in the hands of the most careless servant. It takes the place of the more expensive grease pot, and furnishes the simplest and most effective appliance for the removal of kitchen wastes without danger of clogging; this danger being entirely obviated by the retention of the grease in the flush pot, preventing its escape and accumulation in the trap and pipes; and its operation being automatic, does not depend in the slightest degree on the intelligence of the user.

The body of the sink is the same in appearance and form as the ordinary kitchen sink, with the large strainer taking up one-third of the bottom of the sink. This strainer is shown lifted up in the sectional cut; and the flush pot and connecting trap are also shown in the same cut.

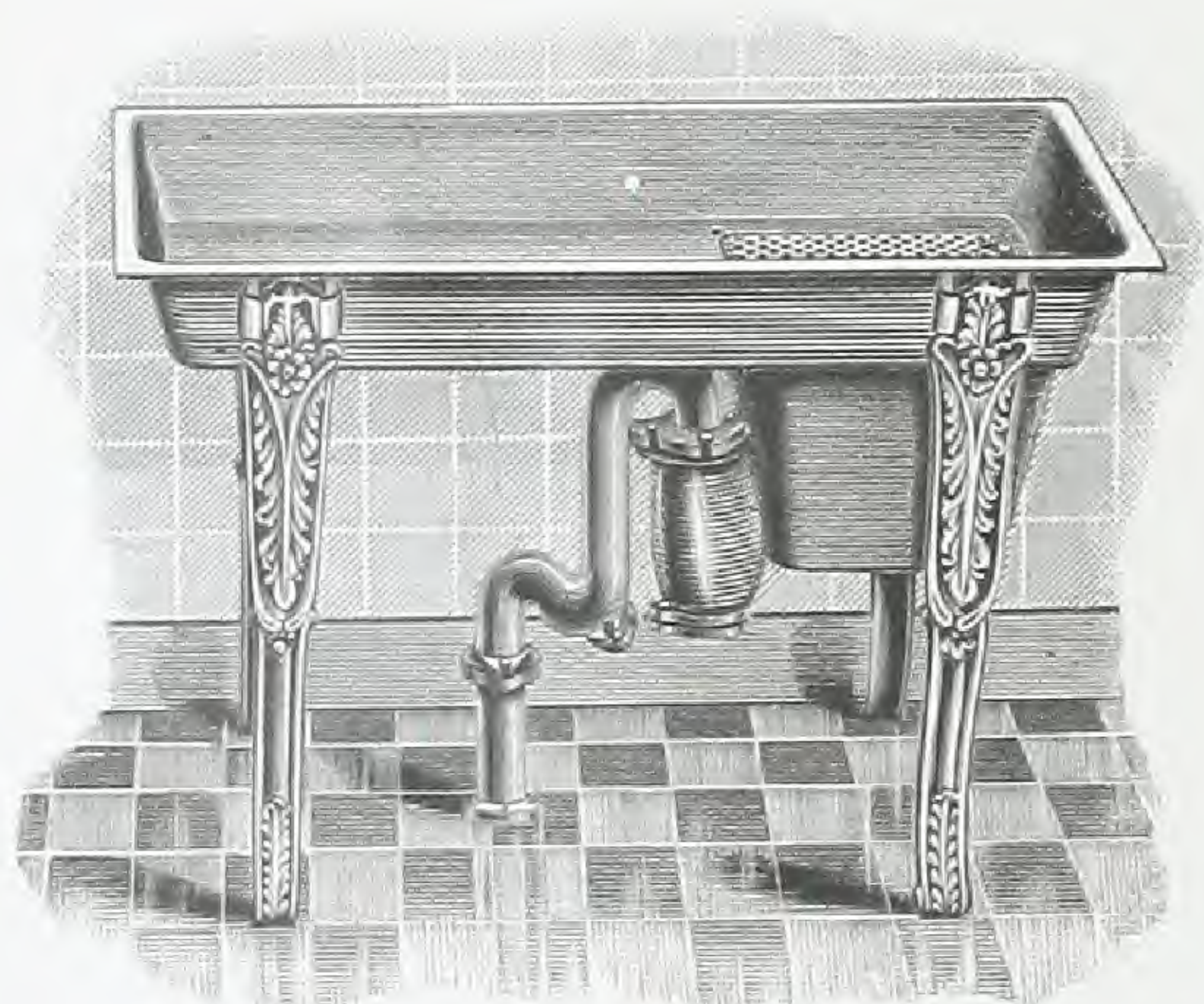
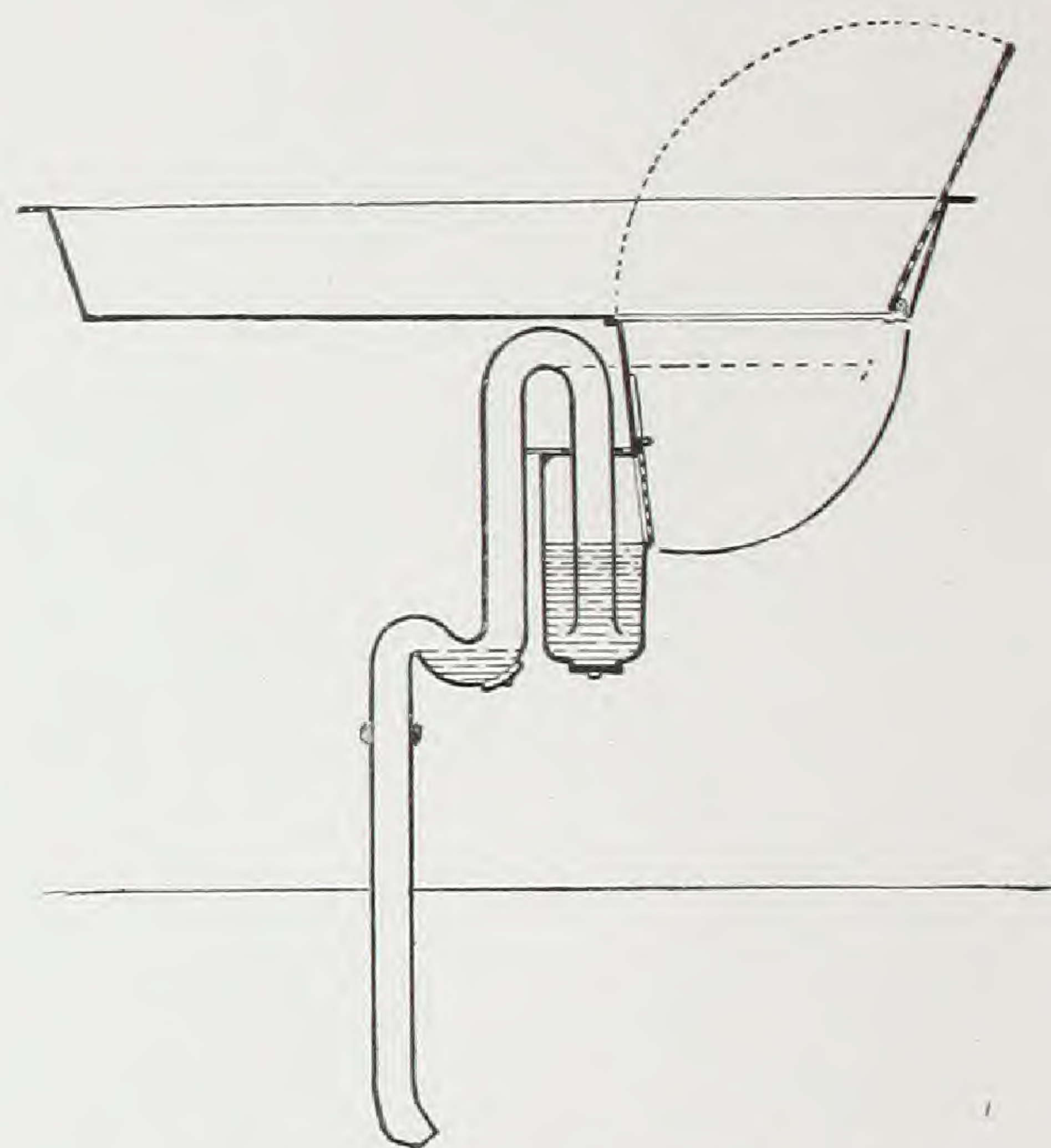


PLATE 166 C.



Section of the Sanitas Kitchen Sink.

A grease trap and flush pot combined, acting automatically by discharging a large mass of water through the pipes, effectually scouring them.

The Sanitas Flush Pot is designed for use either with ordinary iron, soapstone, or any other form of sink, and is sold either alone or in combination with an iron sink body especially cut out to receive the flush pot as shown above.

By the use of the Sanitas Sink and Flush Pot, all the great annoyance, expense and danger arising from the discharge of sink refuse is completely avoided. The sink contains its own trap, and the cost and complication of special trapping is avoided. The Sanitas Sink-trap cannot lose its seal when unvented, and hence requires no back venting, in which case the use of the Sanitas Sink and Flush Pot is considerably cheaper than that of any ordinary sink with grease pot.

Price as shown, in plain iron, with 4 legs, \$21.00 galv., \$37.00

Same with two legs . . . . . 19.00 " 33.00

Iron flush pot only \$12.00. Iron flush pot with brass rim and strainer, \$17.00.

Iron legs each, \$1.00.



## Sanitas Rolled Rim Kitchen Sink.

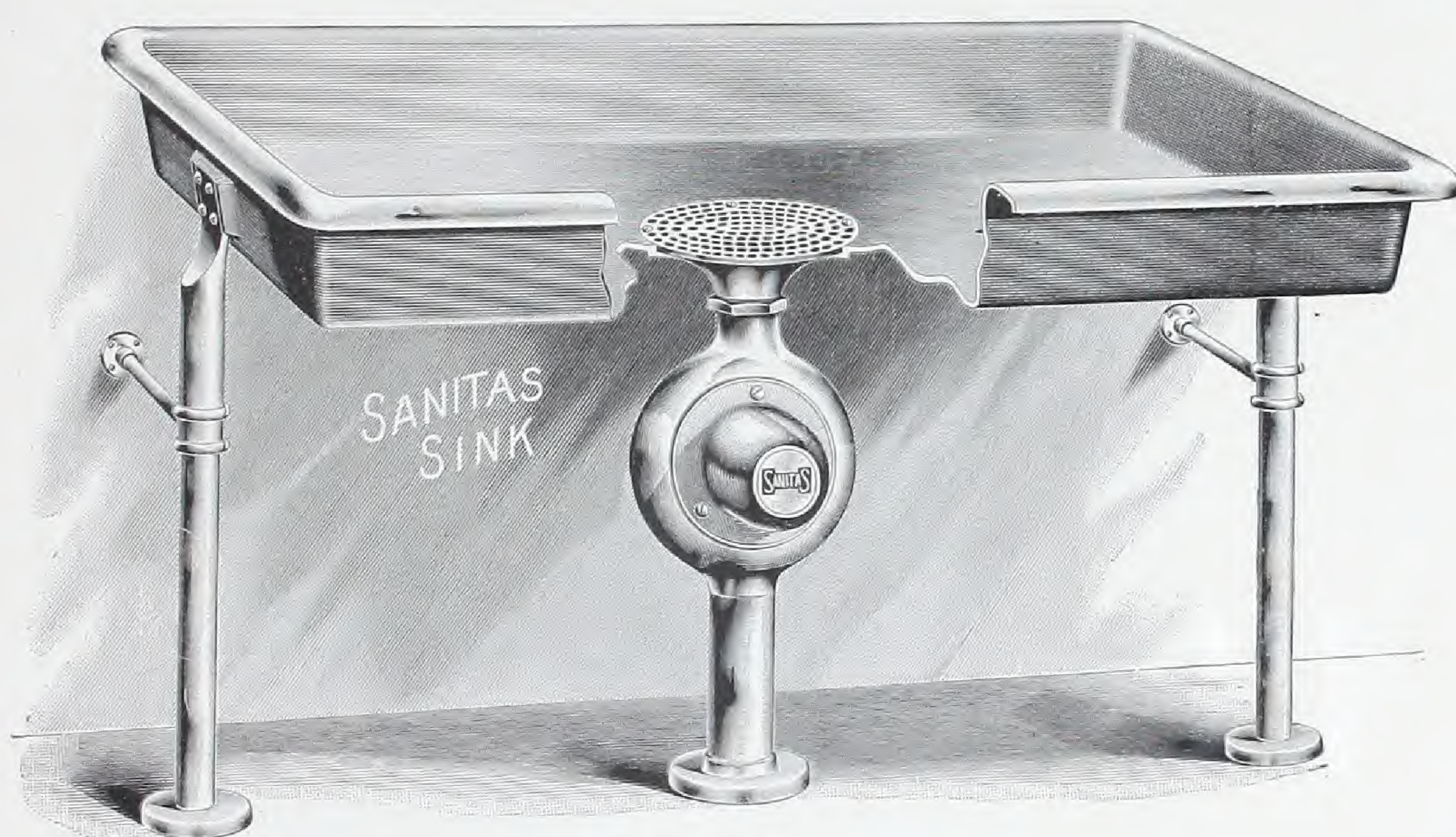


PLATE 167 C.

The Sanitas Rolled Rim Brass Sink is made of an extra hard composition, similar to gun metal, and has a gloss surface that will not absorb grease, etc. It is supported by brass legs with braces, keeping the sink 2 inches away from wall, so that it can be easily cleaned. Being made with rolled rim, there is no need of any wood-work around sink to absorb the grease, etc. The trap forms a support to the centre of sink.

Sanitas Rolled Rim Brass Sink with 3 in. Sanitas Brass Trap, as shown	\$70.00
Add, if with Sanitas Brass Flush Pot instead of Trap . . . . .	27.00
Sanitas Rolled Rim Iron Sink with 3 in. Sanitas Iron Trap, as shown	25.00
Add, if with Sanitas Iron Flush Pot instead of Trap . . . . .	5.00



## Sanitas Porcelain Pantry Sink.

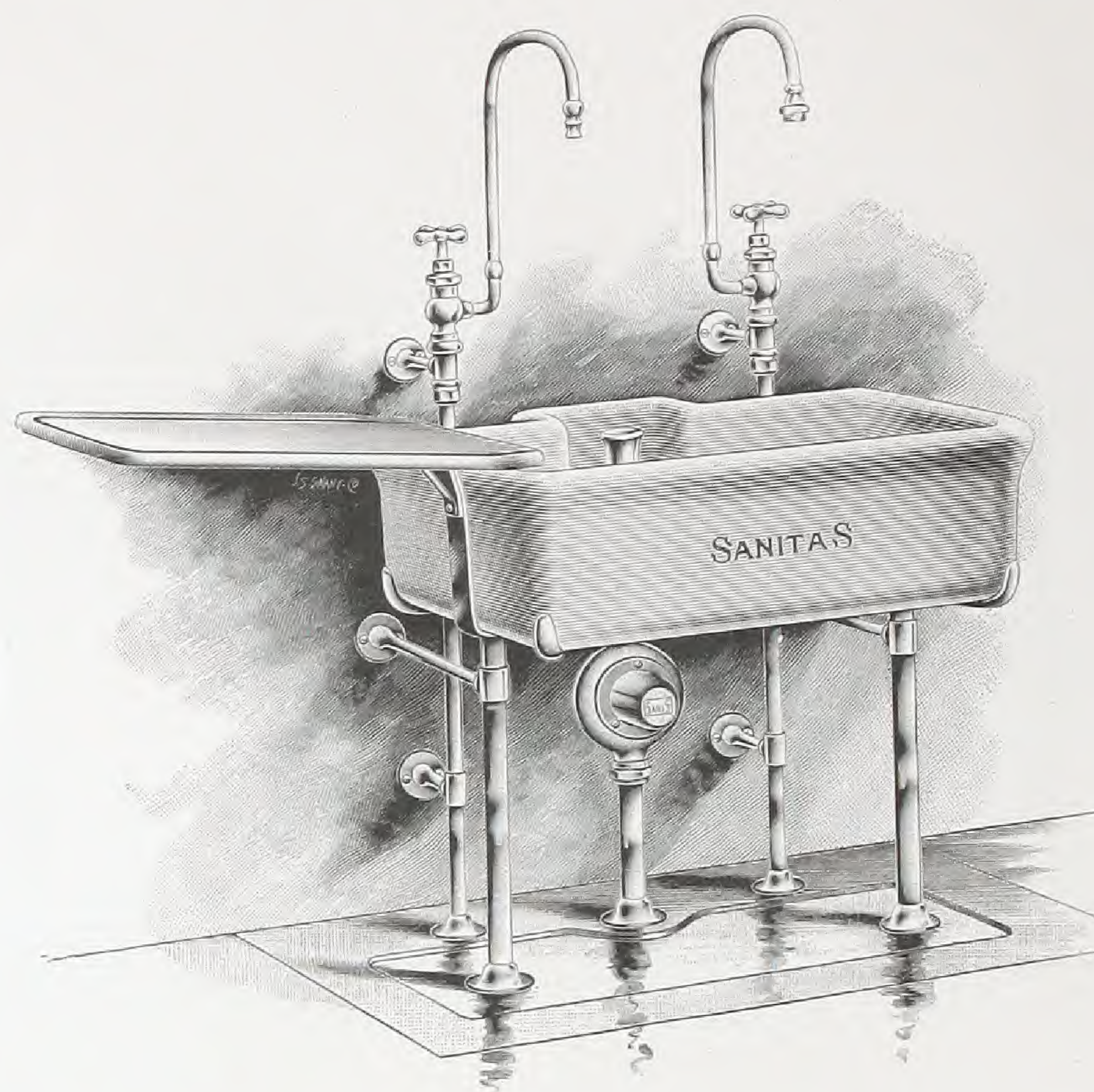


PLATE 168 C.

Consisting of 30 x 20 x 7 Sanitas Porcelain Recessed Pantry Sink, with N. P. Stand Pipe and hard wood Drip Board, with N. P. Bracket. N. P. Special Pantry Cocks, with Wall Supports. N. P. Sanitas Trap, N. P. Legs, with Wall Supports. Sanitas Adjustable Sink Frame.

Price as described . . . . .	\$79.00
Add if 36 x 23 x 7 Sink is desired . . . . .	5.00
Deduct, if German Silver Sink is desired in place of Porcelain . . . . .	10.00

Sanitas Copper lined Recessed Pantry Sink, with N. P. Sanitas Overflow and Lift, lined with 16 oz. copper.

14 x 16	12 x 20	14 x 20	14 x 24	16 x 24	16 x 30	18 x 30
\$15.00	\$16.00	\$17.00	\$18.00	\$19.00	\$21.00	\$22.00



# Sanitas Ventilating Urinal.

SECTIONAL CUT.

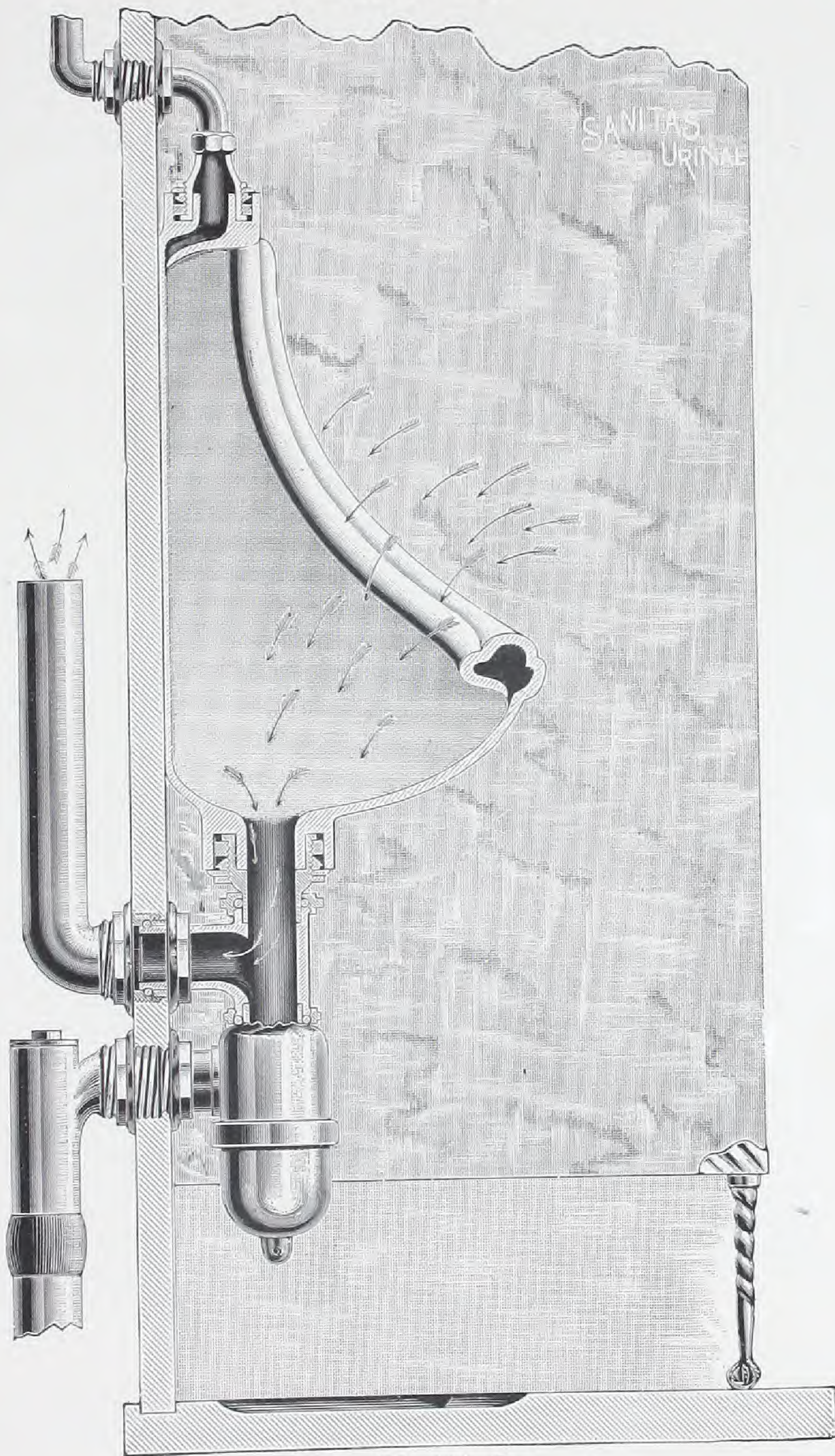


PLATE 169 C.

The Sanitas Ventilating Urinal is especially designed to ventilate the apartment through the Urinal, drawing the air in the room towards and down through the fixture to a ventilating flue. The draught can be increased by having a heated flue or using a fan. The advantage of our system of ventilation must be apparent to all who have given the subject any attention. There is no odor and the rooms are kept thoroughly ventilated.

It will be readily seen from the above cut how easily this Urinal can be put up, or in case of repairs taken down. The connections to the earthen ware, top and bottom, are the same as the Sanitas Closet connections. The supply, waste and vent tee can be easily removed or adjusted to the unevenness of the earthen ware.

For prices see Plate 171 C, of which this is a sectional cut.



# Sanitas Ventilating Urinal.

WITH SELF-CLOSING URINAL COCK.



PLATE 170 C.

For Sectional Cut See Plate 169 C.

Consists of Flat Backed Oval Sanitas Urinal, N. P. McHugh S. C. Urinal Cock, Urinal Trap with Vent Tee and Ell Slip Joint, Italian Marble Back, Partitions and Floor Slab.

Price as described . . . . .	\$79.00
Deduct if marble is not wanted . . . . .	55.50



# Sanitas Ventilating Urinals.

OPERATED BY AUTOMATIC TANK.



PLATE 171 C.

For Sectional Cut See Plate 169 C.

Consisting of Flat backed Oval Sanitas Urinals, round cornered Hardwood automatic Tank and N. P. Supports, N. P. Brass Flush Pipe, N. P. Supply Connections, N. P. Urinal Traps and Local Ventilating Tees. Italian Marble Stalls and Floor Slab.

Price, two stalls as described	\$156.00
“ one stall “ “	92.50
Deduct if marble is not wanted, two stalls	94.50
“ “ “ “ “ one stall	55.50



## Sanitas Ventilating Urinal.

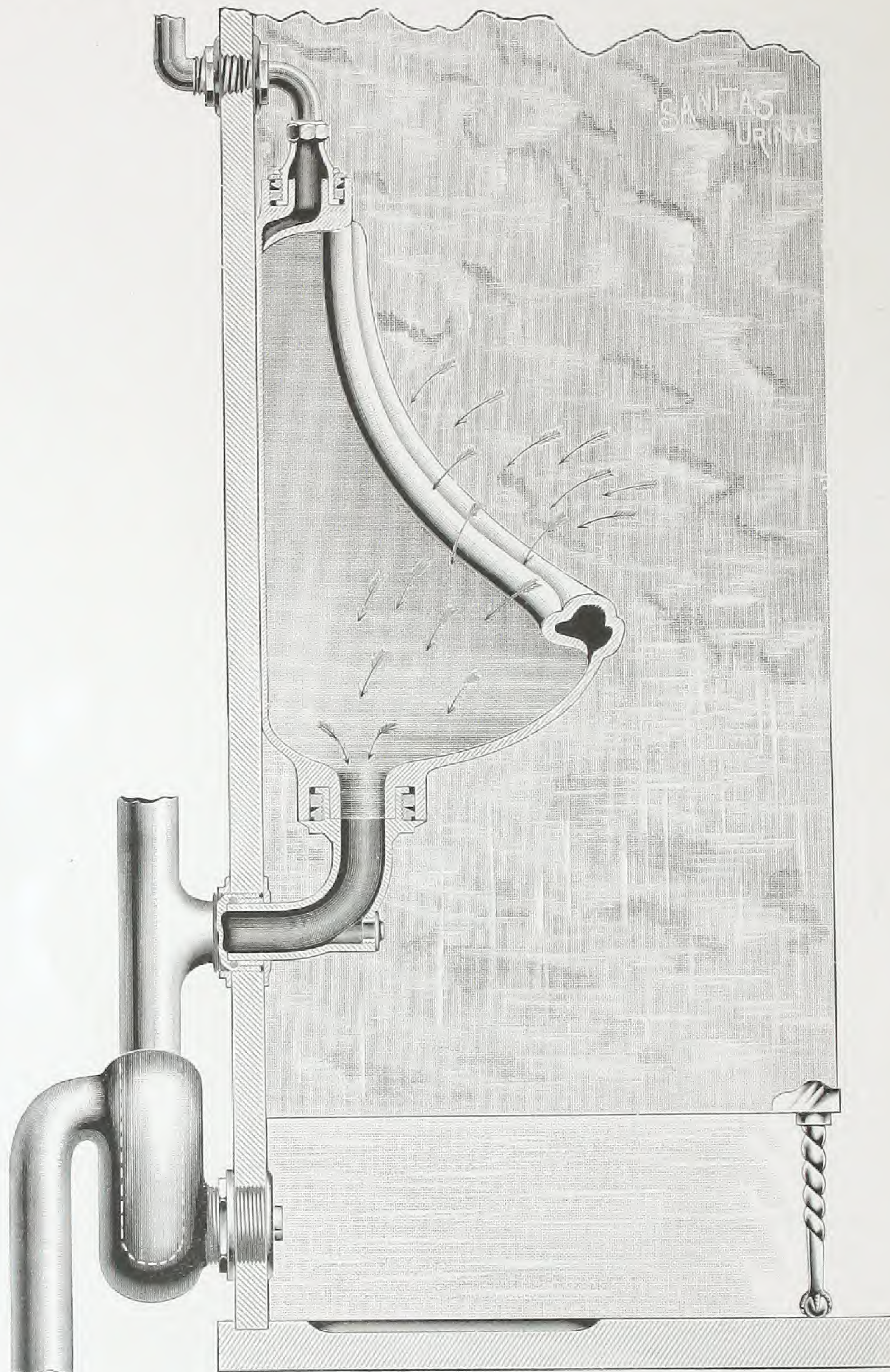


PLATE 172 C.

The above cut shows method of fitting up the Sanitas Ventilating Urinal where it is desired to have trap behind the wall.

The cleanout screw of trap projects through wall, giving ample opportunity to clean out the trap with very little labor. There is also a cleanout screw in waste bend through which all parts of waste pipe above trap can be reached without taking apart any of the fixtures.

It consists of Flat Back Oval Sanitas Urinal, with hard wood Automatic Flushing Tank, N. P. Supply and Waste Connections, with 4-in Trap.

Price as described . . . . .	\$93.50
If supply is from N. P. self-closing urinal cock . . . . .	80.00
Deduct if marble is not wanted . . . . .	55.50



## Sanitas Simplicity Urinal.

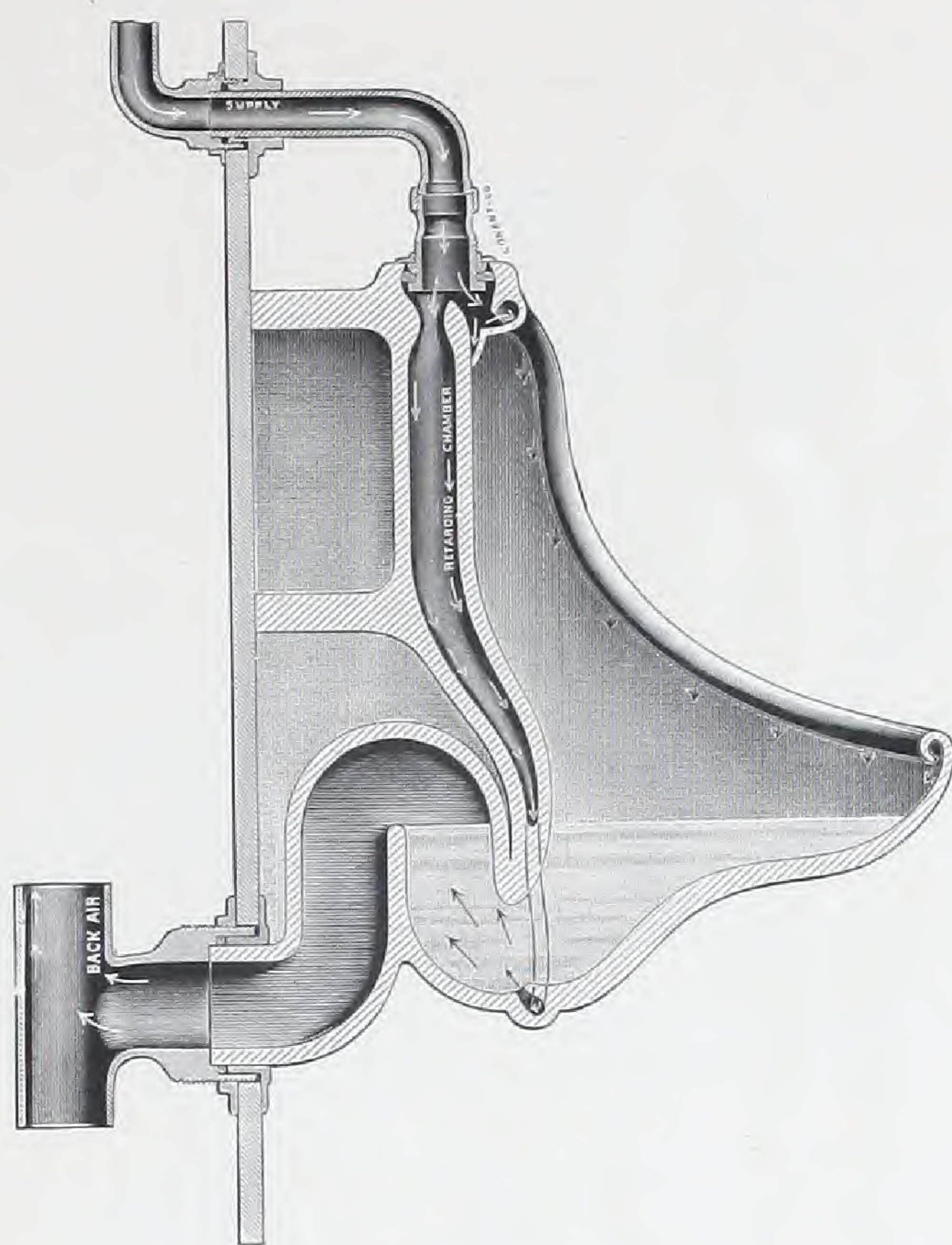


PLATE 173 C.

The Sanitas Simplicity Urinal is something entirely new, being made on the same principle as our Sanitas Closets, having a large body of water in the bowl, and a retarding chamber which insures the refilling of the bowl after urinal is flushed.

There are no metal waste fixtures in sight, the urinal and trap being made in one piece of earthen ware, connecting directly with waste pipe in wall by means of a slip joint, with special packing.

The large body of standing water in the bowl greatly reduces the fouling surface, and renders it possible to have urinals as free from odor as other plumbing fixtures.

The urine, not coming in direct contact with the porcelain, makes it possible to keep the fixture cleanly and free from odor without the constant care and attention heretofore necessary in keeping the usual pattern of urinal even in an endurable condition.

The large open water-way of trap and waste will carry off matter which would clog the ordinary urinal. The thorough manner in which the flush does this, gives the "Simplicity" a neatness of appearance in striking contrast with the usual unsightliness of the regular fixture.

The flushing is done either automatically, or with a pull and chain.



# The Sanitas Simplicity Urinal.

WITH SIPHON JET.

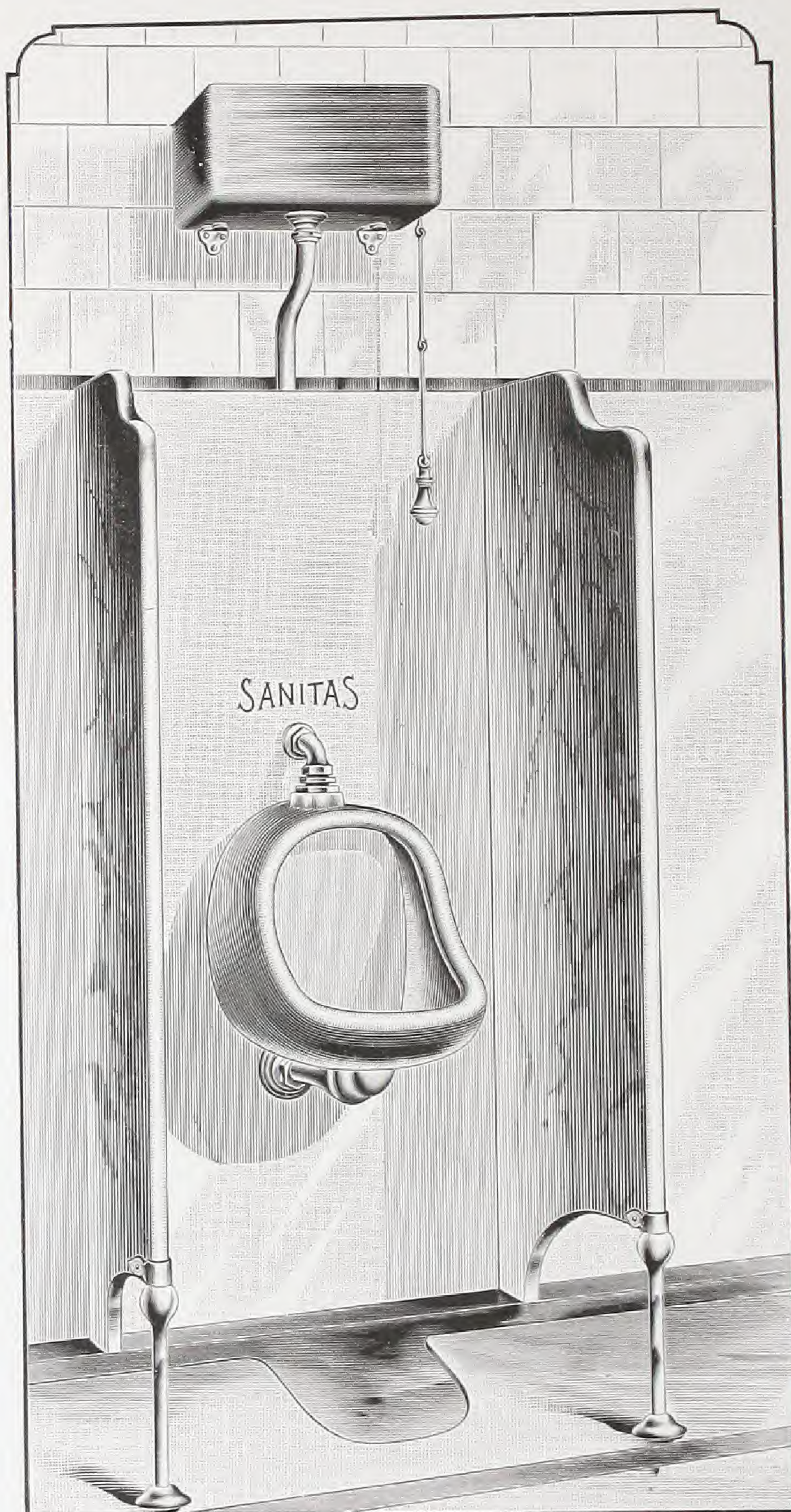


PLATE 174 C.

Consists of Sanitas Simplicity Siphon Jet Urinal, with hard wood Automatic Flushing Tank, N. P. Supply and Waste connections, Italian Marble Stall and Floor Slab,

Price as described . . . . .	\$99.50
Deduct if marble is not wanted . . . . .	55.50

Prices for Additional Stalls and Other Combinations on Application.



## Sanitas Traps for Hotels.

The very highest degree of sanitary protection is assured in Hotels and other Large Buildings by using the Sanitas Traps. The leading Hotels throughout the country are being equipped with them. The following are testimonials from some of the best known hotels in the United States:



**POLAND SPRING HOUSE, SOUTH POLAND, MAINE.**

Has 36 private bath rooms, having complete Sanitas Bath Tub, Closet, Lavatory and Trap outfits. Besides this the general toilet rooms are equipped with the Sanitas Fixtures.

SO. POLAND, ME., December 2, 1895.

SMITH & ANTHONY CO., Boston.

GENTLEMEN:—In reply to your inquiry in regard to the Sanitas goods which you furnished in connection with the plumbing of the Poland Spring House in 1893-4-5, will say, they have given the best of satisfaction, and are spoken of by all who visit our place as being the finest they ever saw. Many ask us where they can be bought. There may be better in the market but we have not found them. Very truly yours,

HIRAM RICKER & SONS, by EDWARD P. RICKER, Pres.

### FROM THE GRAND UNION HOTEL, SARATOGA SPRINGS, N.Y.

GRAND UNION HOTEL, SARATOGA SPRINGS, N. Y., May 18, 1893.

THE SMITH & ANTHONY CO., Boston, Mass.

GENTLEMEN:—Desiring to secure the highest sanitary protection in the Grand Union Hotel, we have recently contracted with Messrs. Irlbacker & Davis, of Buffalo, N. Y., to furnish us with over five hundred of your Sanitas Traps. We were guided in our selection by the judgment of our sanitary engineer and by our own experience with the Sanitas Appliances at the Hotel Iroquois at Buffalo, where they have been used for a number of years.

The prominence of the Grand Union Hotel as a summer home, and the distinguished character of its patronage, made it necessary for us to spare no effort or expense in getting the most sanitary appliances known in modern plumbing. We consider it a strong advertisement of the Hotel that our lavatory basins are furnished throughout with your Anti-Siphonic Seal Retaining Sanitas Traps.

We congratulate ourselves and our patrons on this latest addition to the equipment of the Grand Union.

Yours truly,

WOOLEY & GERRANS, Managers.

### FROM THE PORTLAND HOTEL, PORTLAND, OREGON.

PORTLAND, OREGON, March 14, 1893.

SMITH & ANTHONY COMPANY.

GENTLEMEN:—It is very appropriate that the finest Hotel in the Northwest should have the highest grade of sanitary appliances obtainable. The sanitary arrangements of the "PORTLAND" were carefully planned, and it gives us pleasure to state that the hundred and twenty-five Sanitas Traps used, which were supplied by the John Barrett Co., of this city, have proved to be all that they were recommended.

By their use the guests of the "Portland" are assured complete immunity from sewer gases, or any of the other dangers resulting from inferior traps. We have never had the slightest difficulty with them, and their sanitary protection is unquestioned.

Yours very truly,

THE "PORTLAND."

W. H. BARMORE, Manager.



# The Evolution of the Sanitas Trap,\*

FROM A SCIENTIFIC STANDPOINT.

"To produce an anti-siphon trap, which shall possess all the qualities necessary to enable it to resist all adverse factors encountered in plumbing work, let us begin with the simplest form of partially anti-siphon trap known at the time of the original passage of the trap-vent law—the common round or pot trap—study the phenomena which are revealed in its operation, and make such modifications in its form as this study shows to be necessary for its improvement. To properly understand the action which goes

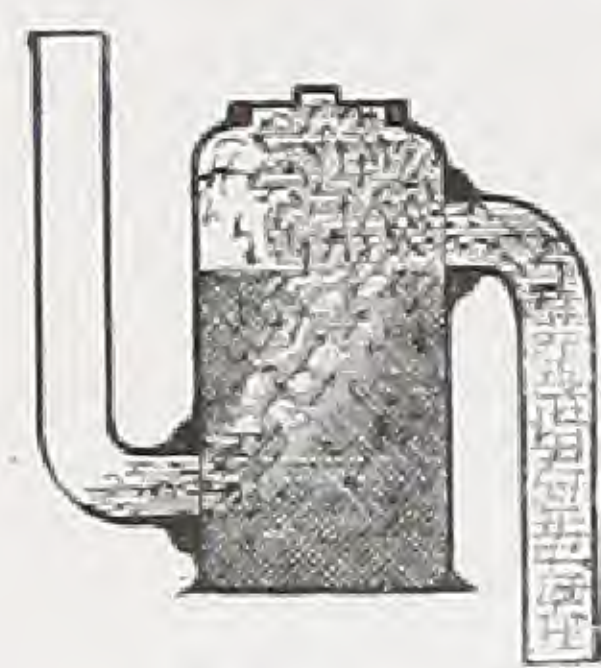


Fig. a.

on, it will be necessary to have all the traps we use made of glass, in whole or in part. Fig. a represents such a trap drawn in section, showing the movement of the fluids within it. Under the influence of a powerful siphonage, air is forced through the trap by a sudden disturbance of the atmospheric equilibrium on the two sides of the trap. This is equivalent to an increase of pressure on the house side. The air, being lighter than the water, passes through the latter, and, in doing so, rapidly drives some of the water out in advance of it. If the siphonage were continued long enough, all the water above the inlet would be ultimately expelled, for the direction of the air current is constantly towards the outlet, and there is nothing in the form of the trap to reflect the water away from its outlet. The action is always sudden, because the partial vacuum to be supplied in the soil-pipe is produced by a rapid fall of water passing suddenly by the mouth of the pipe to which the trap is attached. It is the **suddenness** of the action which causes the air to project the water upwards violently in its passage through it, as shown by the arrows. Part of this water strikes the top of the trap; and of this again, part is reflected backwards in the form of spray in all directions, and part adheres to the surrounding surfaces, in obedience to the law of attraction, and then trickles down the sides of the trap, in obedience to the law of gravity, and unites with the water below. It is the same as when wind and rain strike a window-pane. The rain adheres to the glass and trickles down, while the lighter air escapes.

"In falling back, part of the reflected water again passes across the outlet mouth and is forced out with the general current and is lost. Fig. b shows an attempt to diminish the fouling surface of a pot-trap, but the result is a more rapid loss of the water seal under siphonage, as the water is reflected directly into the outlet. Thus the water is by degrees all thrown out, and the total destruction of the seal becomes simply a matter of time, dependent upon the proportions of the body of the trap as related to the inlet and outlet arms. How can this time be prolonged, or, in other words, how can the power of resistance to siphonage be increased, without increasing the actual size of the body of the trap?

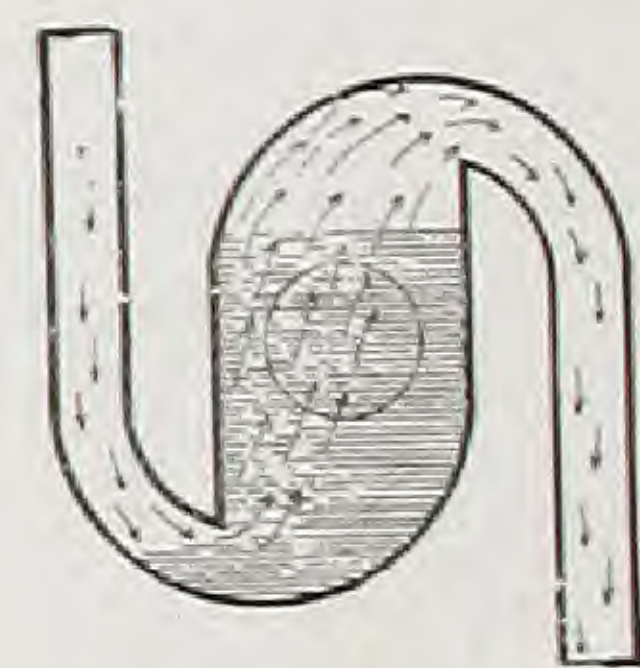


Fig. b.  
Pot Trap with corners rounded.

"Evidently the smaller the amount of water lying in the path of the air current, in proportion to the entire volume of water contained in the trap, the less of it will be removed thereby.

"Hence the action of the trap will be very much improved if it be set horizontally, as in Fig. c. The air in passing through the trap now disturbs a much smaller proportion of the water than before, and

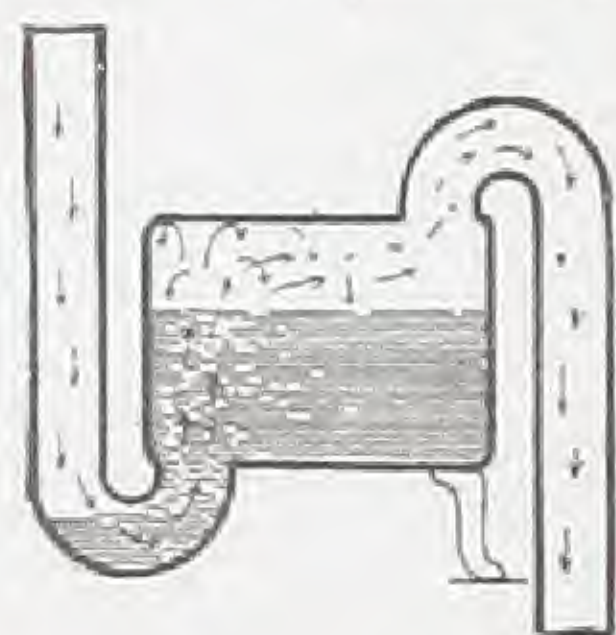


Fig. c. — Second Form. Pot Trap set horizontally.

the loss is consequently less. A very important point gained is, that the water is reflected **before** instead of **after** passing the outlet mouth, so that the spray is not obliged to pass twice within the influence of its suction. A comparative test on these two arrangements of the same sized trap showed a power of resistance on the part of the horizontal form nearly double that of the vertical.

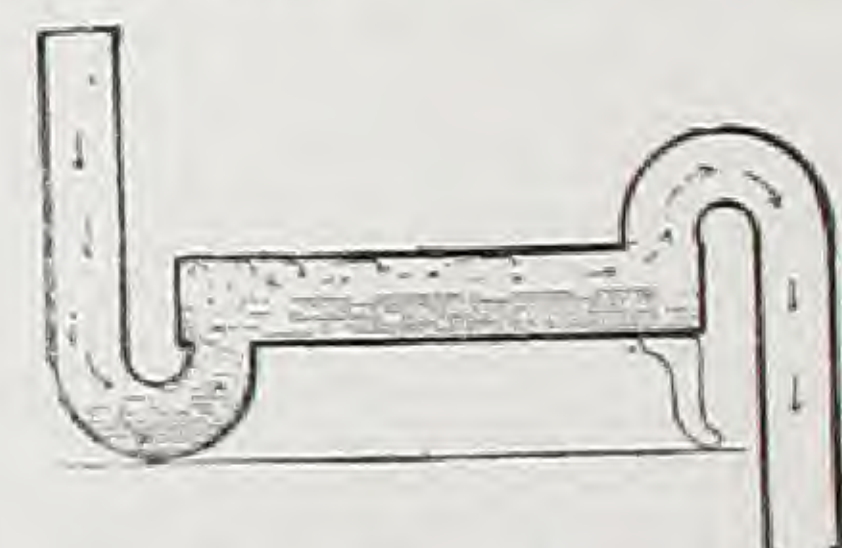


Fig. d. — Third Form. The diameter of the body is reduced to substantially the same size as that of the inlet and outlet arms.†

"We are now able to greatly diminish the size of the body of the trap, and upon experiment we shall find that the sectional area of the body may be reduced to one-half its original size without reducing the resisting power of the trap below that of the first form.

"Still the trap is not self-cleansing. To render it substantially so, the body must be reduced to very nearly the size, in sectional area, of the inlet and outlet arms. A further reduction of this size, as

\*From "Improved Plumbing Appliances," by J. Pickering Putnam. Published by William T. Comstock, New York, 1887.

† This and all the subsequent steps in the development of the Sanitas traps are patented.



shown in Fig. *d*, without further modification, would, of course, correspondingly reduce its resisting power. To make some modification which will permit of this reduction of size without loss of power, is our next problem.

"Having now rendered the trap substantially self-cleansing, it remains to increase its power of resistance still further, for we find it by no means yet sufficiently anti-siphonic. There are two ways in which this may be done. The first is to increase the volume of water in the trap without diminishing its scour, in order that there may be an increased supply to reflect back into the trap after repeated siphonages, and the second is to multiply the reflecting surfaces, or baffles, which shall retain the water, but allow the air to pass. The first desideratum is accomplished by simply increasing the length of the horizontal body of the trap. The air has room to escape above the surface of the water, as indicated by the arrows in Fig. *d*. We can readily see that, if this horizontal body could be indefinitely prolonged, the power of resistance of the trap would be indefinitely increased, while the velocity and scouring effect of the water would be diminished in a much smaller ratio. Practically, the only thing which limits us in this horizontal extension of the body is the awkwardness of form which would result therefrom. The long body is liable to sag, and occupies far too much space laterally. Fortunately, our second desideratum suggests the best means of overcoming this difficulty. We can best increase the number of reflecting surfaces by

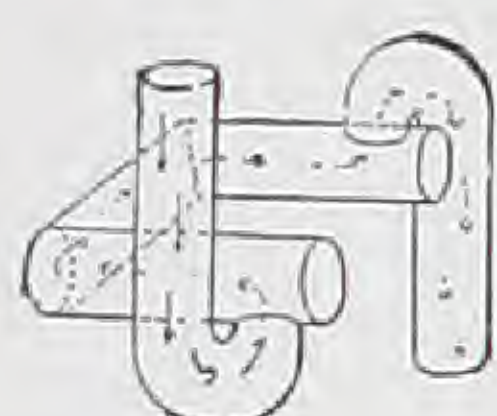


Fig. e.  
Fourth Form. Increase of  
length of body and of re-  
flecting surfaces.

bending the long horizontal body and making it return upon itself in a quadrangle, as shown in perspective in Fig. *e*. We shall now find that we have very greatly increased the power of the trap. The air rushing around the various corners throws off the water-spray in its passage centrifugally. The water adheres to the opposing surfaces, while the air does not. Each bend forms an effective reflecting surface; and by the time the air current reaches the outlet, it will be found entirely freed from spray, however powerful the siphoning action. We have, in fact, now obtained a trap which has shown itself to be **absolutely anti-siphonic** in plumbing work, or, in other words, a trap whose seal cannot be broken by any amount of siphoning action that can be brought to bear upon it under the conditions met with in plumbing. At the same time, however, we have obtained a trap which is exceedingly difficult to manufacture, awkward in appearance, and troublesome to clean out in case of accident—as when a match or any such foreign substance is dropped into the waste-pipe, and becomes lodged in one of the bends. How can this form of trap be simplified so as to render it practical without losing any of the advantages we have thus far arrived at? It may be accomplished as shown in Fig. *f*, by merging the three horizontal cylinders into one simple vessel, whose entire interior surface can be reached through a single clean-out hole, placed wherever desired. The effect of the four bends is obtained by constructing within the vessel an interior partition, which shall extend from one end far enough towards the other to direct the currents of air and water around in a circuit without obstructing its passage. Thus we have retained all the reflecting surfaces; the horizontal body, which allows the air to pass above the water after a certain quantity has been driven out, without disturbing the rest, and the slight contraction of the inlet mouth.

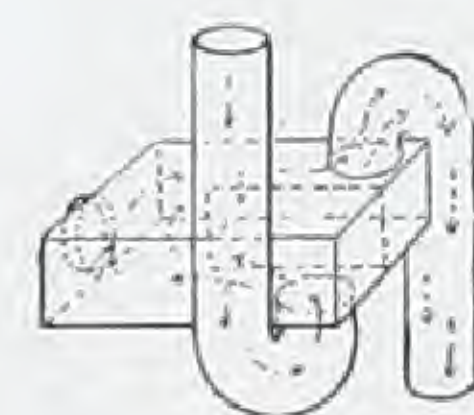


Fig. f.  
Fifth Form.  
Greater compactness.

"To still further facilitate the manufacture of the trap, however, and remove the sharp angles, which are objectionable, both in operation and appearance, a still further modification is necessary.



Fig. g.  
Sixth Form.  
Perfected Anti-siphon Trap.

Fig. *g* shows how this is done; and this, and the remaining figures, gives us the perfected trap in its marketable form. None of the valuable characteristics of Fig. *f* have been omitted, but we have so constructed the parts that the greatest economy and convenience of form is obtained, together with an agreeable and workmanlike appearance. A portion of the cylindrical body is made detachable, so that the whole of the interior can be reached with the greatest possible facility. The interior partition is intended in actual construction to be movable in all cases, except when the trap is constructed entirely of brass.

"This trap, which is known as the 'Sanitas' trap, has shown itself to be practically anti-siphonic, and, when properly set, capable of resisting the severest back pressure ever encountered in good plumbing."

After a sufficient quantity of the water has been drawn out under siphonage to give room for a free passage of the air, each subsequent siphoning action has less and less effect on the water which remains, and the seal can never be destroyed in actual plumbing usage.



# The Principle of the Sanitas Trap.

The chief requirements in the use of a Trap are:

- First. That it may retain its water seal at all times.      Second. That it be self-cleaning.**  
**Third. That the use of a vent pipe be not a necessity.**

The most adverse forces against which a trap has to contend in plumbing practice, are siphonage and evaporation. There are two methods of resisting siphonage, in ordinary trap construction. One is mechanical, making use of seals, such as "balls," "valves," or "gates" for preventing the escape of water.

The other relies on a vent pipe to relieve the air pressure without disturbing the water.

Mechanical seals are notoriously ineffectual, as the slightest foreign substance in the trap completely deranges its operation. Mechanical seals also obstruct the water ways and prevent the rapid flushing of the traps, and favor the accumulation of filth along the inside of the wastes.

Back venting is equally unreliable. The vent outlet becomes contracted by the adhesion of grease and other solids, until it either closes altogether, or is too narrow to supply enough air to save the water seal. Even under the most favorable conditions it cannot be depended on with any feeling of security, for the friction of the air in the vent pipe on its way to the trap is generally so great that the water is siphoned out of the trap before the action of the vent begins. On the other hand, as long as the vent pipe remains open and active in drawing air over the trap, it very rapidly destroys the seal by evaporation.

The technical features of the Sanitas Trap are easily explained by the aid of the following cuts, and by comparison with other traps. In the ordinary S trap the body of water is exceedingly narrow, and the air, under the influence of siphonage, is forced through the trap, driving the water out with it, and completely unsealing the trap.

In the other common construction, known as the "pot" or "bottle" trap, the body of water is much larger than in the S trap, and the danger of siphonage is less; but a new danger in the shape of a large fouling surface presents itself, practically making the pot trap a miniature cess-pool. This form of trap is therefore out of the question, except under kitchen sinks to collect grease. The great problem with sanitary engineers has been to secure a trap which should combine complete scouring qualities with resistance to siphonage and evaporation.

This is secured in the Sanitas Trap by having the body of the trap horizontal instead of vertical, in combination with other constructive features. Inside of this horizontal body is a curved partition, the whole giving several deflecting surfaces for throwing back the water under siphoning action, at the same time permitting the air to escape. The agitation of the water in a trap is of course caused by the rush of the air through it under siphonage. In the Sanitas Trap the air is allowed to get out, but the water is reflected back and held in the trap to a sufficient depth to always maintain its seal.

After a small quantity of water has been drawn out of the Sanitas Trap under siphonage to give room for a free passage of the air, each subsequent siphoning action has no appreciable effect on the water which remains, and the seal can never be destroyed in this way under the severest conditions of actual use.

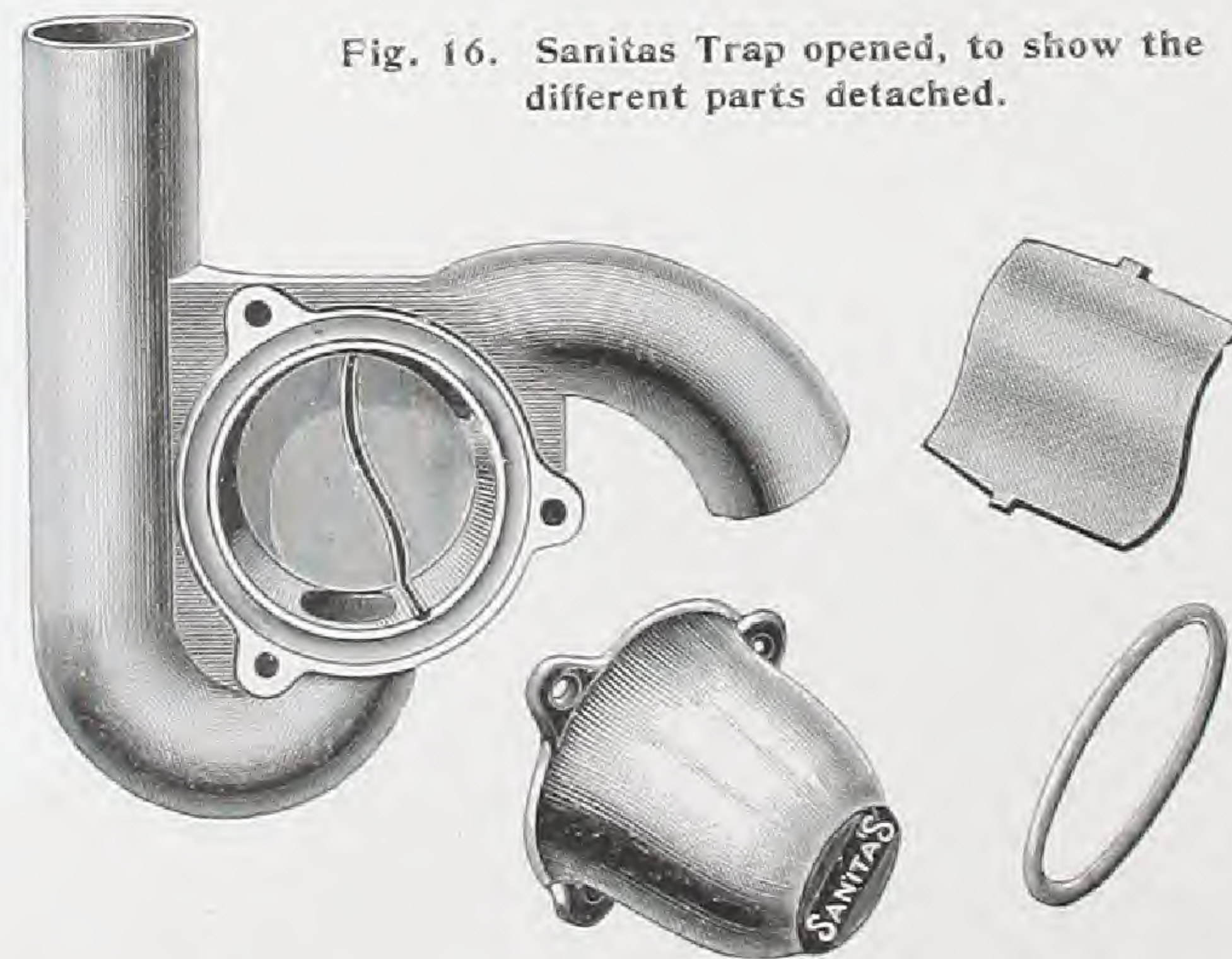
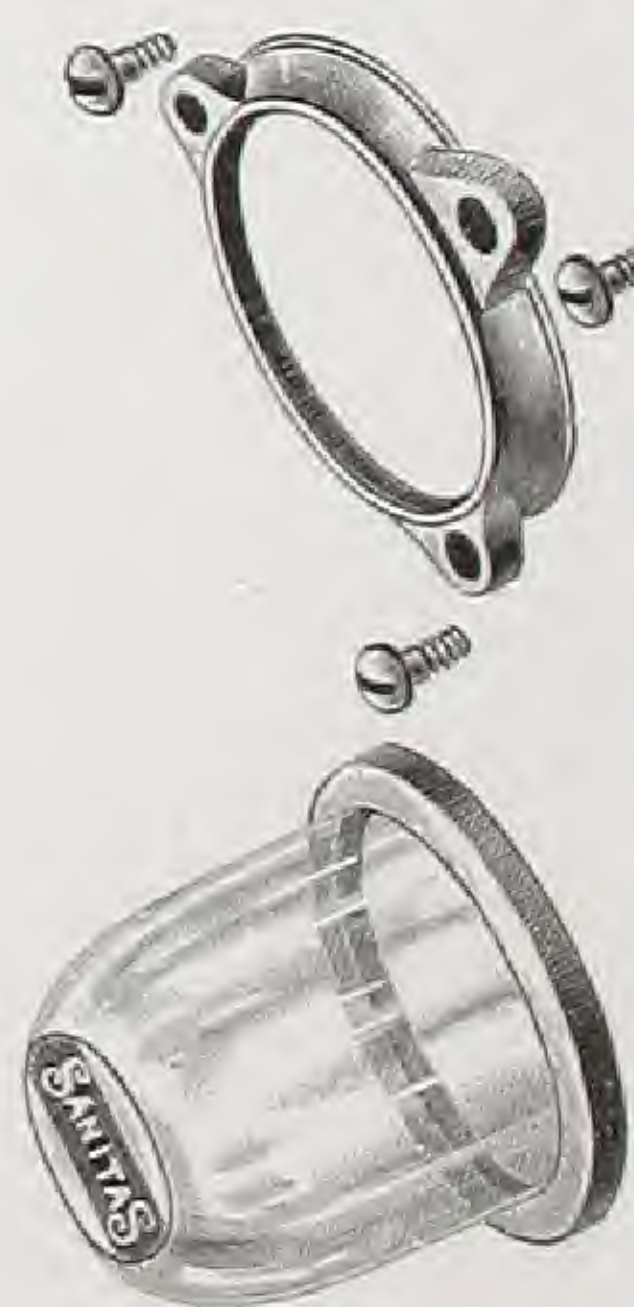


Fig. 16. Sanitas Trap opened, to show the different parts detached.

Fig. 17. Glass Cup, with its metallic collar.



The above cuts show the various parts of the Trap clearly exposed by the removal of the cup. The inlet and outlet openings and the shape and position of the deflecting partition and surfaces are plainly seen.

By loosening three screws the trap can be easily inspected and cleaned if necessary, without the aid of a mechanic. When the cup is made of glass the whole interior construction of the trap can be seen at a glance.

While the Sanitas Trap does not require venting, it admits of it the same as any other trap, and can thus be made to conform to any building laws. All sanitarians now admit that whether the vent is used or not, the trap itself should be anti-siphonic, since the vent alone cannot always be relied on for the reasons stated above.



## Sanitas Traps.—Continued.

The following are the various forms in which the Sanitas Trap is made to suit the varying position of fixture outlets, and waste-pipes. The Sanitas "Right" and "Left Hand" Traps are the forms which will be found most convenient when the waste-pipe must be carried laterally to the right or left respectively.

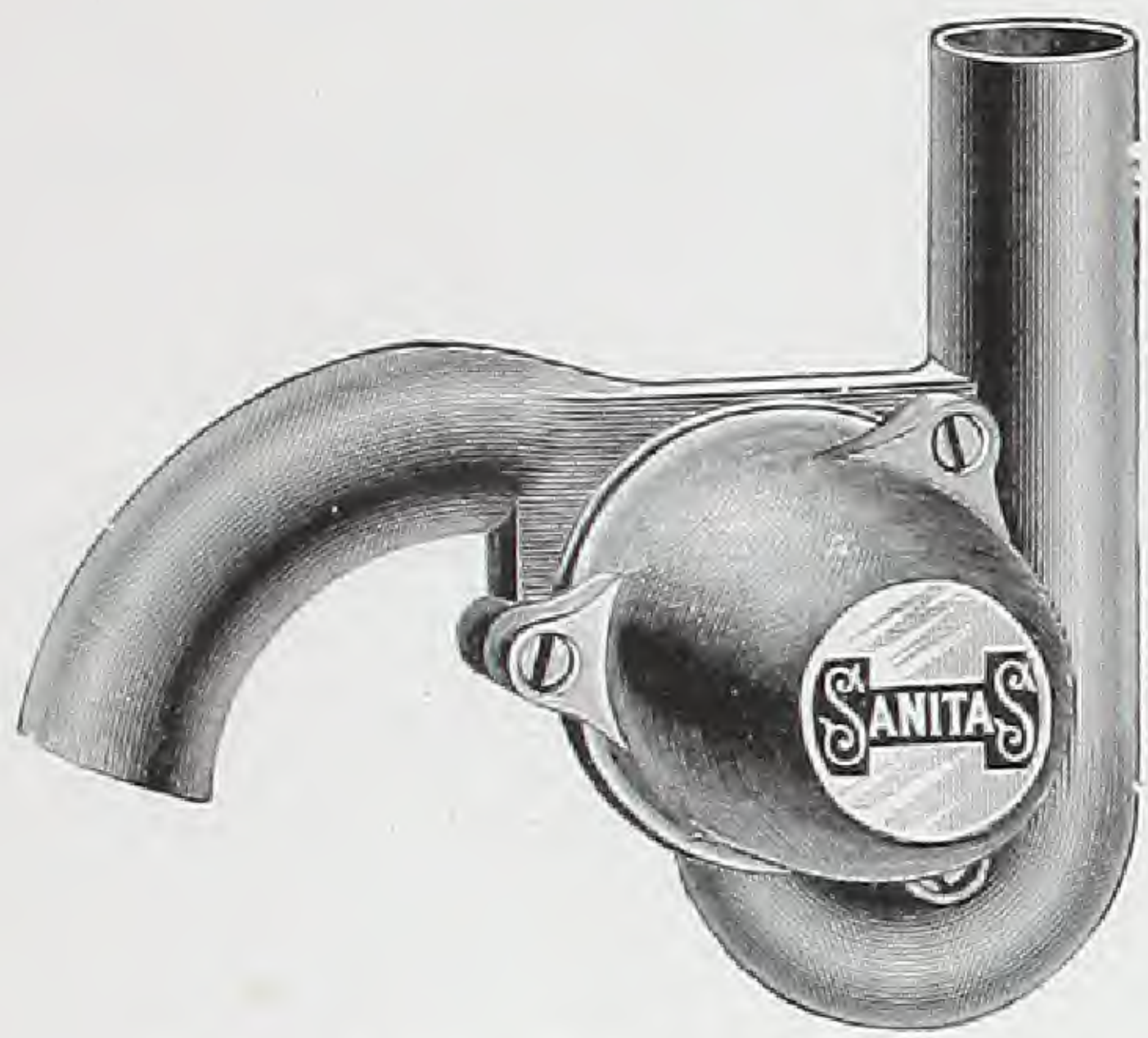


Fig. 3.—Sanitas Left Hand Trap.



Fig. 6.  
Sanitas Full S. Trap.

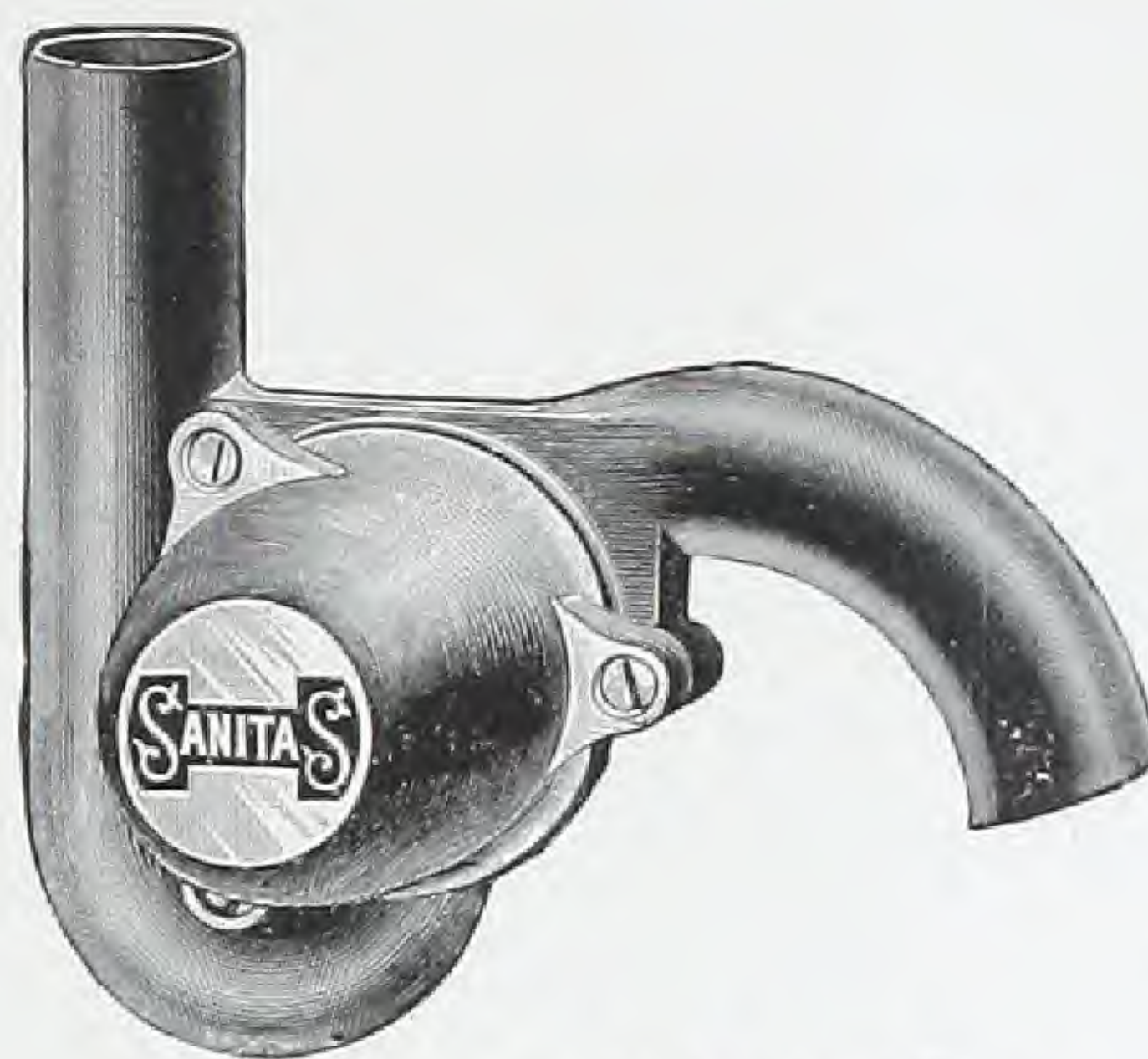


Fig. 2.—Sanitas Right Hand Trap.

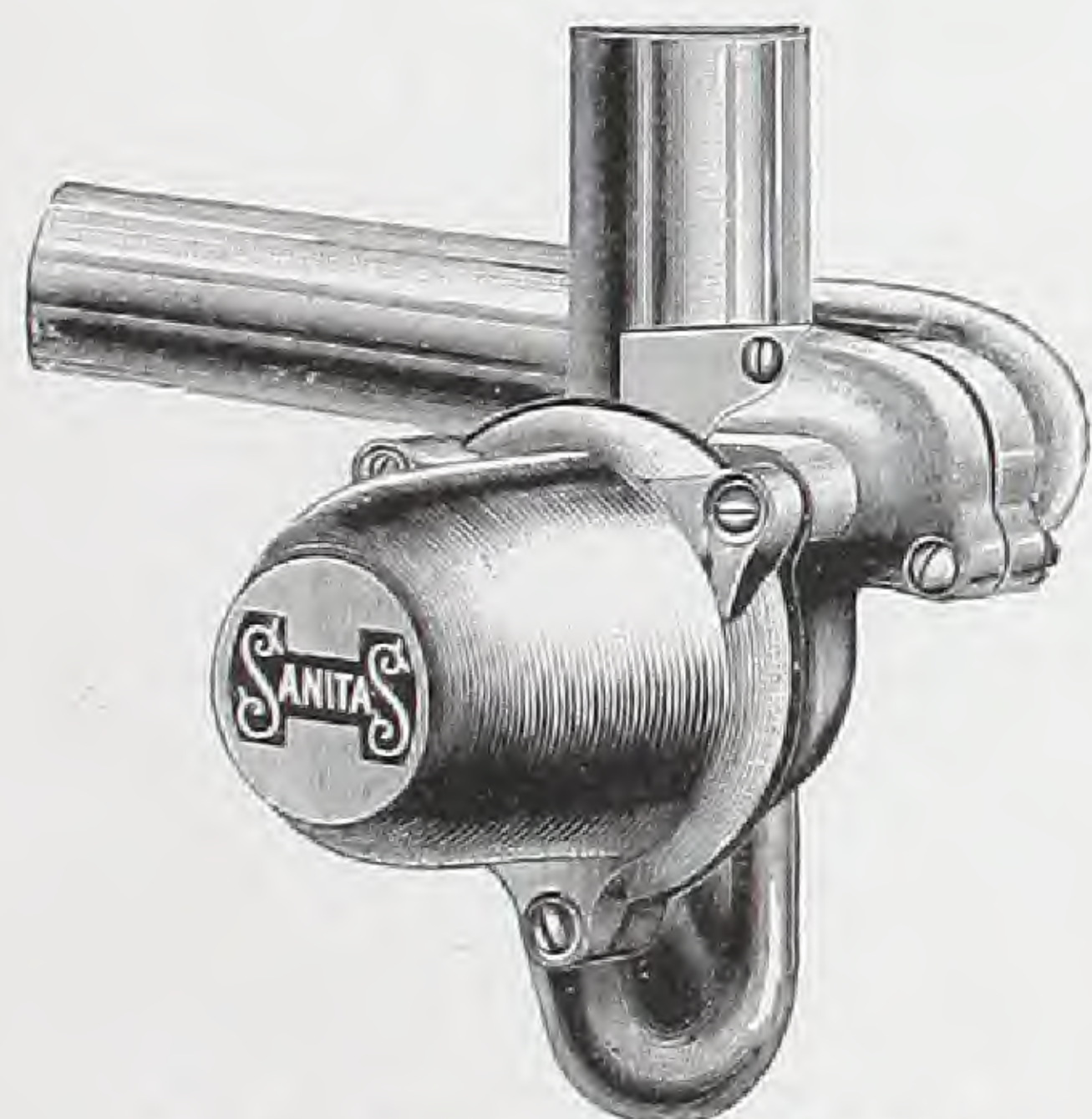


Fig. 7.—Sanitas Adjustable Trap,  
making a one-half S. Trap.

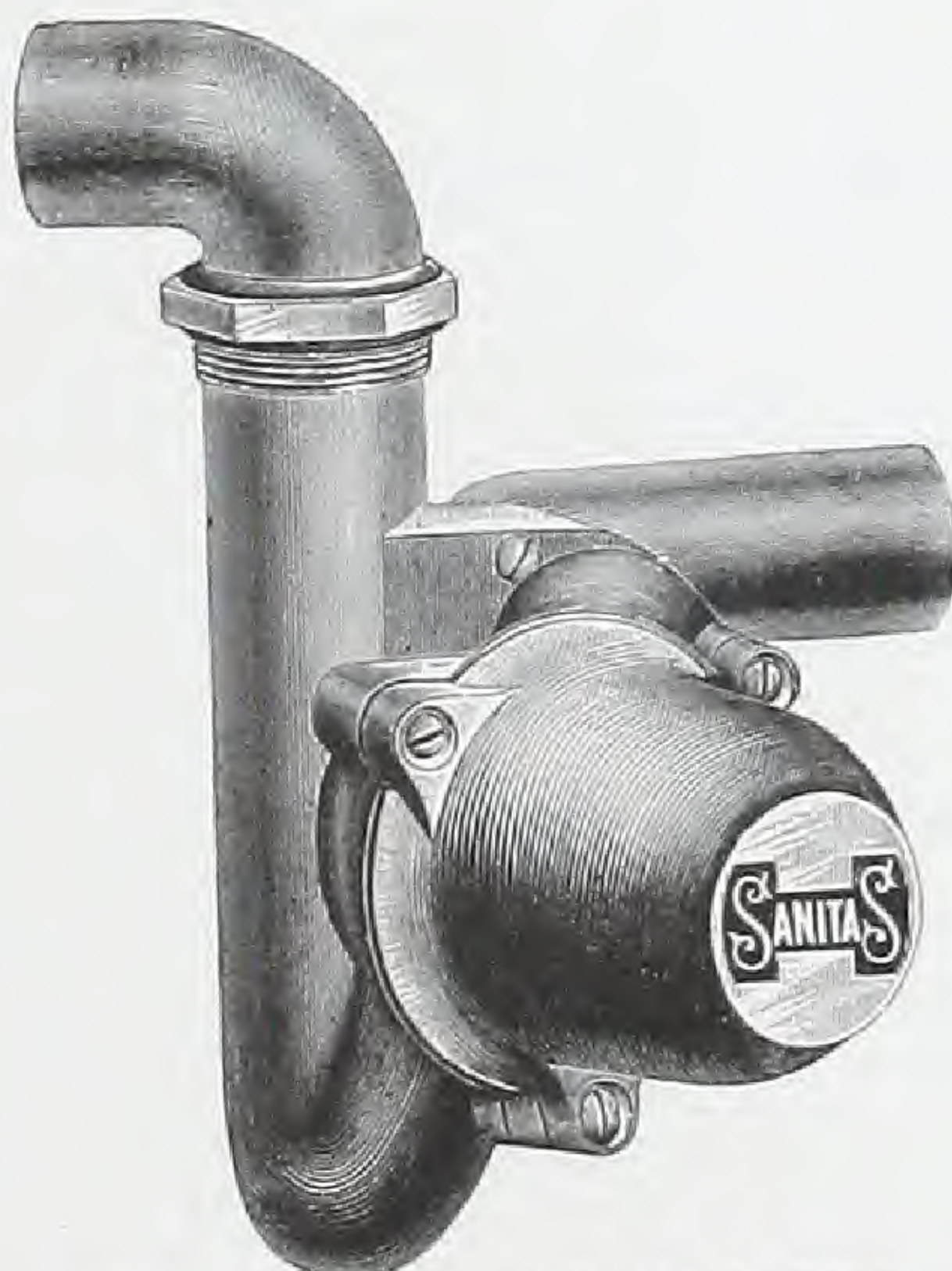


Fig. 8.—Sanitas Adjustable Trap,  
making a Running Trap.

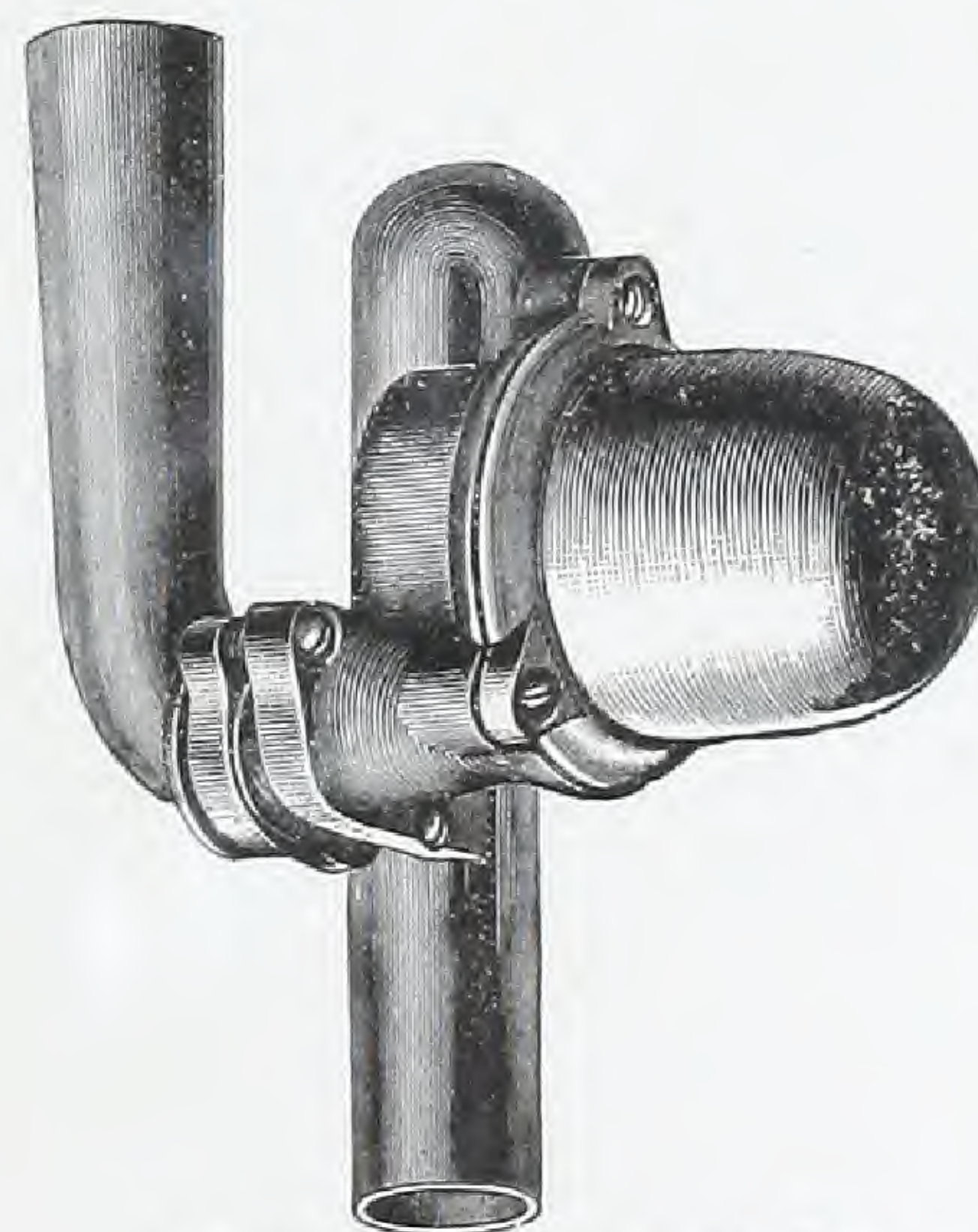


Fig. 9.—Sanitas Adjustable Trap,  
making a full S Trap.

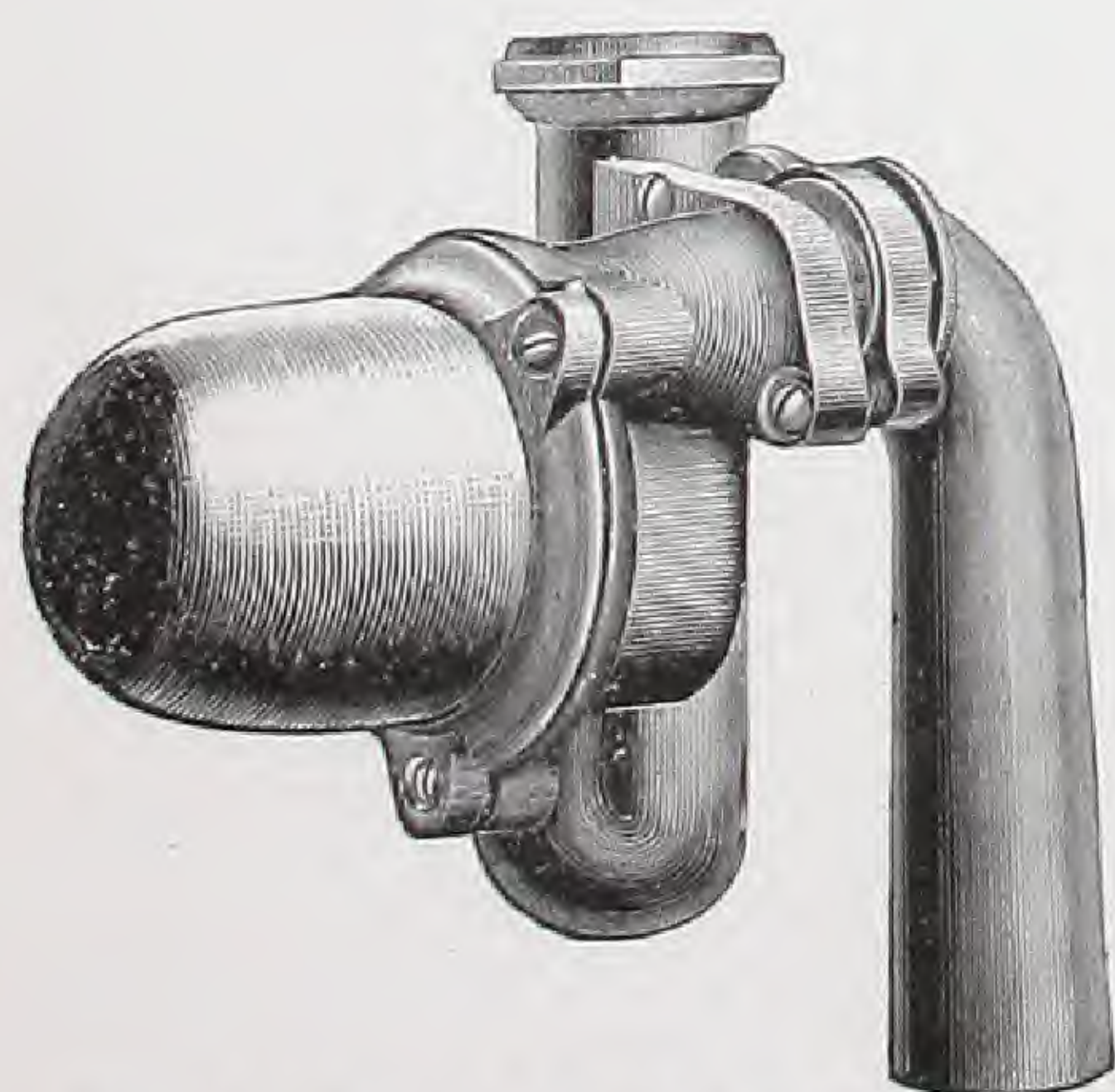


Fig. 10.—Sanitas Adjustable Trap, fitted  
to couple directly to the Sanitas  
Lavatory Outlets.



Fig. 11a.—Sanitas Brass Trap.

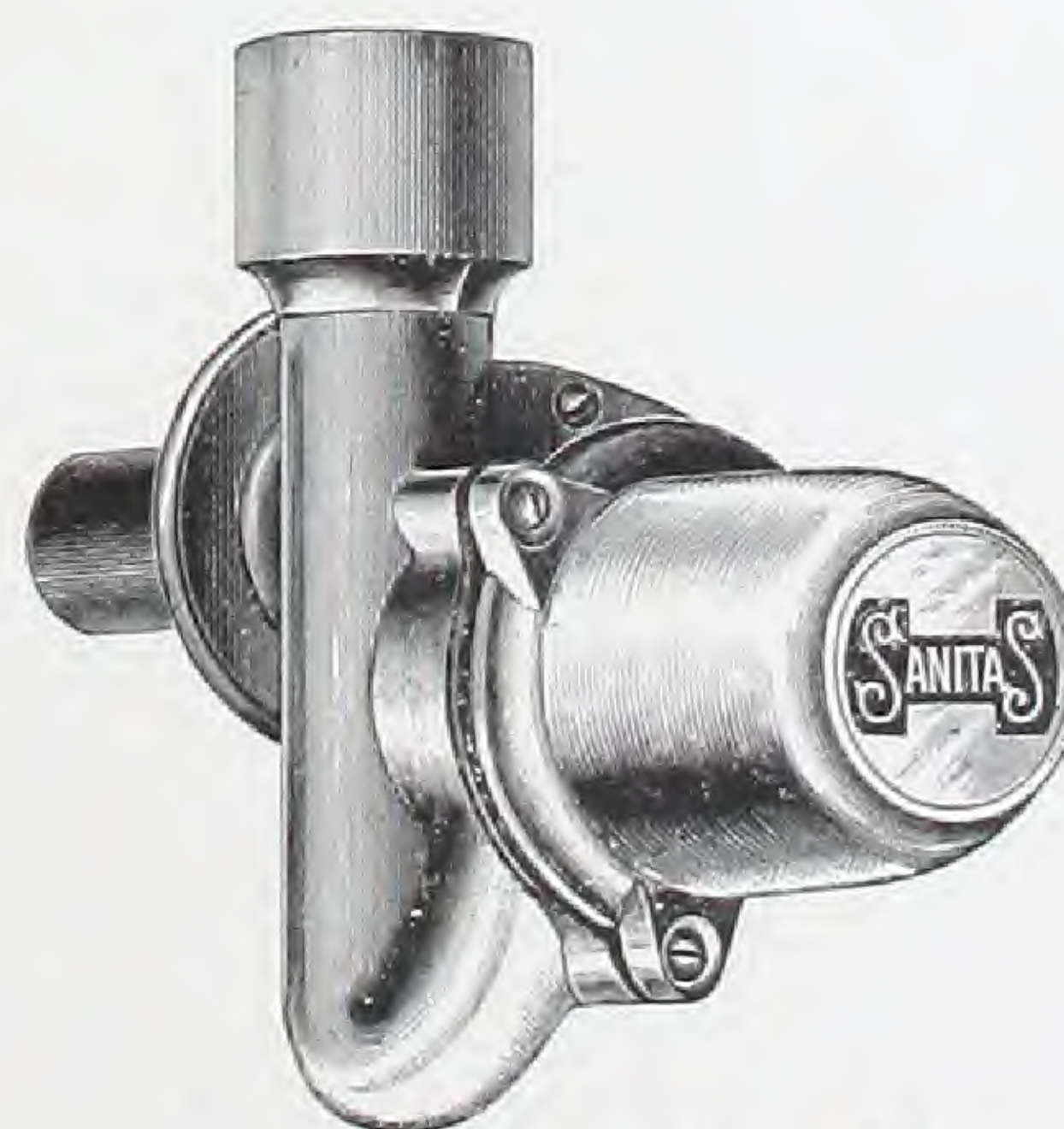


Fig. 11b.—Sanitas Urinal Trap.  
In Lead or White Metal.



## Sanitas Brass Traps.—Continued.

Fig 11a gives a front view of the Sanitas Brass Trap as made to couple directly on to the Sanitas Basin. It has a male thread at the outlet at lower end for connecting with brass piping. **It is the most attractive and symmetrical trap made.** The principle of construction is the same as the Lead Trap.

The ordinary 1 1/2 inch Sanitas Trap is made of Lead, with Lead, Copper or Glass Cup. The adjustable and urinal traps are also made in White Metal when desired. The Sanitas Brass Trap is made in one style only, as shown in Fig. 11a, and can be furnished Nickel or Silver Plated. The 3 inch Sanitas Trap is used for Kitchen or Slop Sinks, and is made both in Iron and Brass. A cut is shown in combination with a Slop Sink on page 49.

## Sanitas Trap Price List.

### SANITAS LEAD TRAPS.

	Glass Cup.	Lead Cup.	Copper Cup.
Nos. 2, 3, 5, 7, 9 and 10.....	\$2 25	\$2 50	\$2 75
No. 8.....	2 75	3 00	3 25
No. 11 B. Urinal Trap.....	.....	3 00	.....

### SANITAS BRASS TRAPS.

No. 11 A, Polished Brass.....	7 00
Nickel-plated.....	7 75
No. 11 A. Nickel-plated Brass Trap, with Floor or Wall Waste, including Adjustable Flange and Slip Joint.....	9 50
No. 11 A. 3 in. Polished Brass Trap.....	17 75
Add for nickel-plating same.....	2 50
No. 11 A. 3 in. Iron Sanitas Trap.....	5 75
Add for two-way brass inlet and connection for wash trays.....	3 00
Add for three-way brass inlet and connection for wash trays.....	4 00

### SANITAS WHITE METAL TRAPS.

No. 10. Nickel-plated white metal Sanitas adjustable trap with straight or bent couplings.....	5 25
No. 10. Nickel-plated white metal Sanitas adjustable trap, with nickel-plated brass wall or floor waste and adjustable flange, with slip joint.....	7 25
No. 11 B. Nickel-plated white metal Urinal Trap, with nickel-plated straight couplings.....	5 25
No. 11 B. Nickel-plated white metal Sanitas Urinal Trap, with nickel-plated brass Wall Waste, and adjustable flange and slip joint.....	7 25
Add for Vent Tee.....	85



## Testimonials from Sanitary Specialists.

• • • • •

The following are a few of the many testimonials the Sanitas Appliances have received from authorities in sanitary engineering and plumbing:

### **William E. Hoyt, C. E., S. B.,**

Chief Engineer of the Buffalo, Rochester & Pittsburg Railroad, formerly Chief Engineer of the Massachusetts State Board of Health, in his Lecture on "Household Sanitation," delivered before the Academy of Sciences, at Rochester, N. Y., in January, 1886, writes: "I know of nothing to compare with the Sanitas Appliances in convenience, efficiency and safety. They should be regarded in the same light as valuable discoveries in medical science."

### **Col. Geo. E. Waring, Jr.,**

the eminent sanitary engineer, speaks highly of the Sanitas system in his article on "Sanitary Plumbing," in the "Century Magazine" for November and December, of 1884, and says of the Sanitas trap, that he "finds it effective in withstanding siphonage, and substantially self-scouring," and adds: "It seems to me the best trap I have ever seen."

### **William Paul Gerhard, C. E.,**

the well-known expert, and popular writer and authority on sanitary engineering, writes of the Sanitas Bath Tub in his article on "Domestic Sanitary Appliances," in "Good Housekeeping" for 1884-85: "Here the stand-pipe is placed in a recess, but so as to be perfectly accessible for cleaning. The outlet of the Sanitas Tub is made unusually large, to effect a quick discharge, thus securing a thorough scouring to the trap and waste pipe, the tub acting as a flush-tank. It is by far the best sanitary tub of which I have knowledge, and answers all requirements of a perfect plumbing fixture."

Speaking of water closets he writes: "Another form of improved hopper-closet calls for a detailed description, as it is of a superior construction, its design based upon sound sanitary principles. This is the Sanitas Self-Sealing Water Closet, manufactured by the Sanitas Manufacturing Company, of Boston.

"The action of the Sanitas Closet is almost instantaneous, it being possible to flush it easily in one second and with less than a gallon and a half of water.

"The closet is self-sealing, for the moment the water in the trap is lowered to a certain point just above the dip of the trap, water follows from the upright supply pipe until the trap is refilled up to the overflow line."

Of the Pantry Sink he says: "A very convenient arrangement is what is known as the Sanitas Pantry Sink, in which the stand-pipe is provided with a simple lever movement to lift it from its seat, if it is desired to empty the sink. The volume of water discharged from such a sink through a very large outlet, and concentrated beyond this in a trap and waste pipe of small calibre, causes a thorough flushing of both, and prevents the grease from adhering to the sides of the pipe."

Speaking of Basins, he says in the same publication: "Much the best form of Basins of which I have knowledge is the stand-pipe outlet basin, or Sanitas Wash Basin, manufactured in Boston by the Sanitas Manufacturing Company; and since this fixture will, in my judgment, soon supersede all former devices, and since it has so many superior features of simplicity, convenience and sanitary construction, I shall describe it fully." Then follows a detailed description of the fixture, saying among other things: "It is of the utmost simplicity, and of great convenience in use, while its appearance is, if anything, more pleasing than that of the usual form of bowl."



## The "Sanitary Record," of London,

writes of the Sanitas Trap in Sept. 15, 1885: "Mr. Putnam, an expert architect of Boston, undertook, some time ago, an extended series of experiments with traps, in behalf of the City Board of Health of Boston. These investigations were published and illustrated in the 'American Architect' at the time, and led to the development of the remarkable trap which Mr. Putnam has called the 'Sanitas.' This trap has gained the unqualified approval of the leading engineers of America.

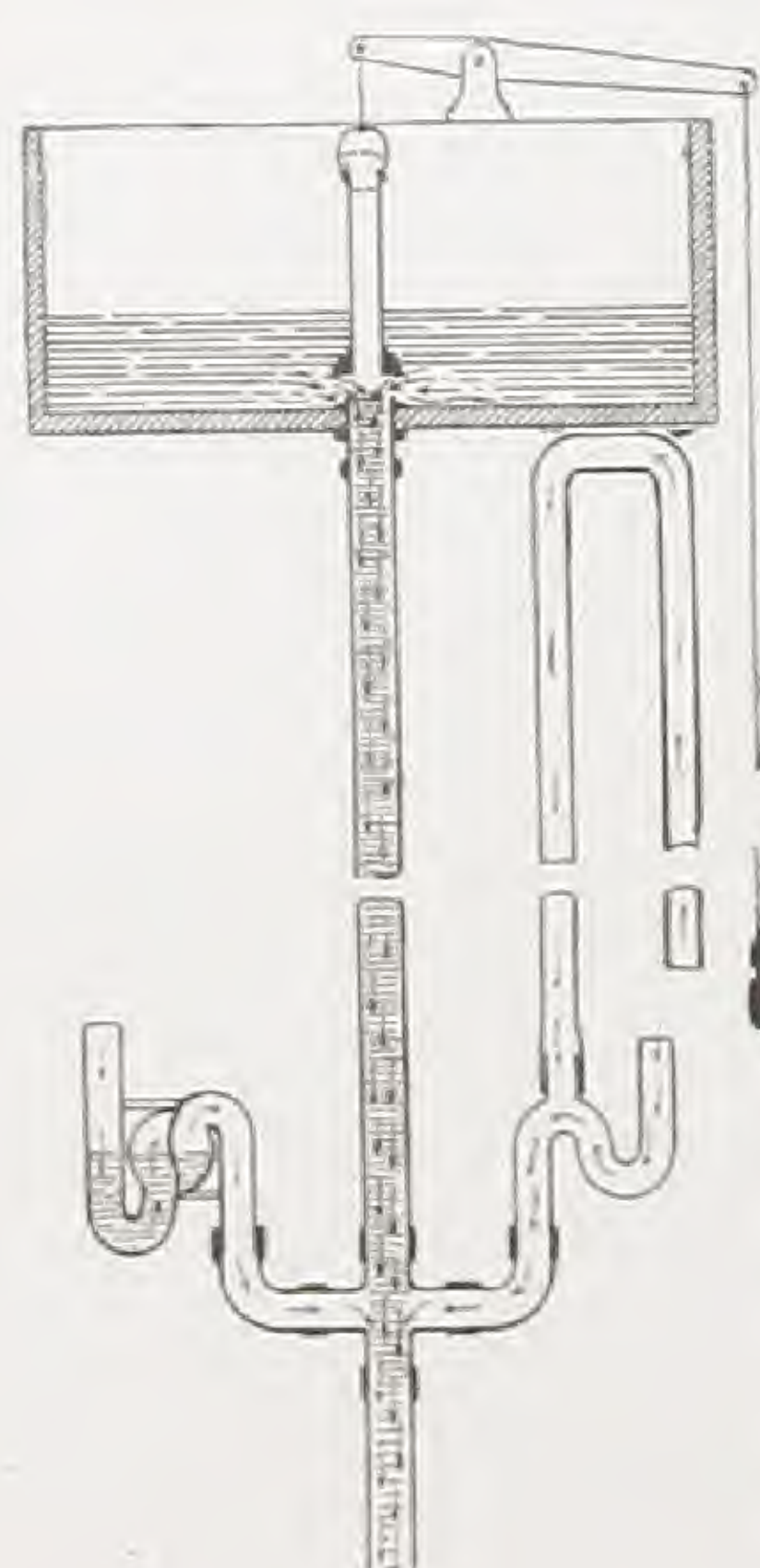
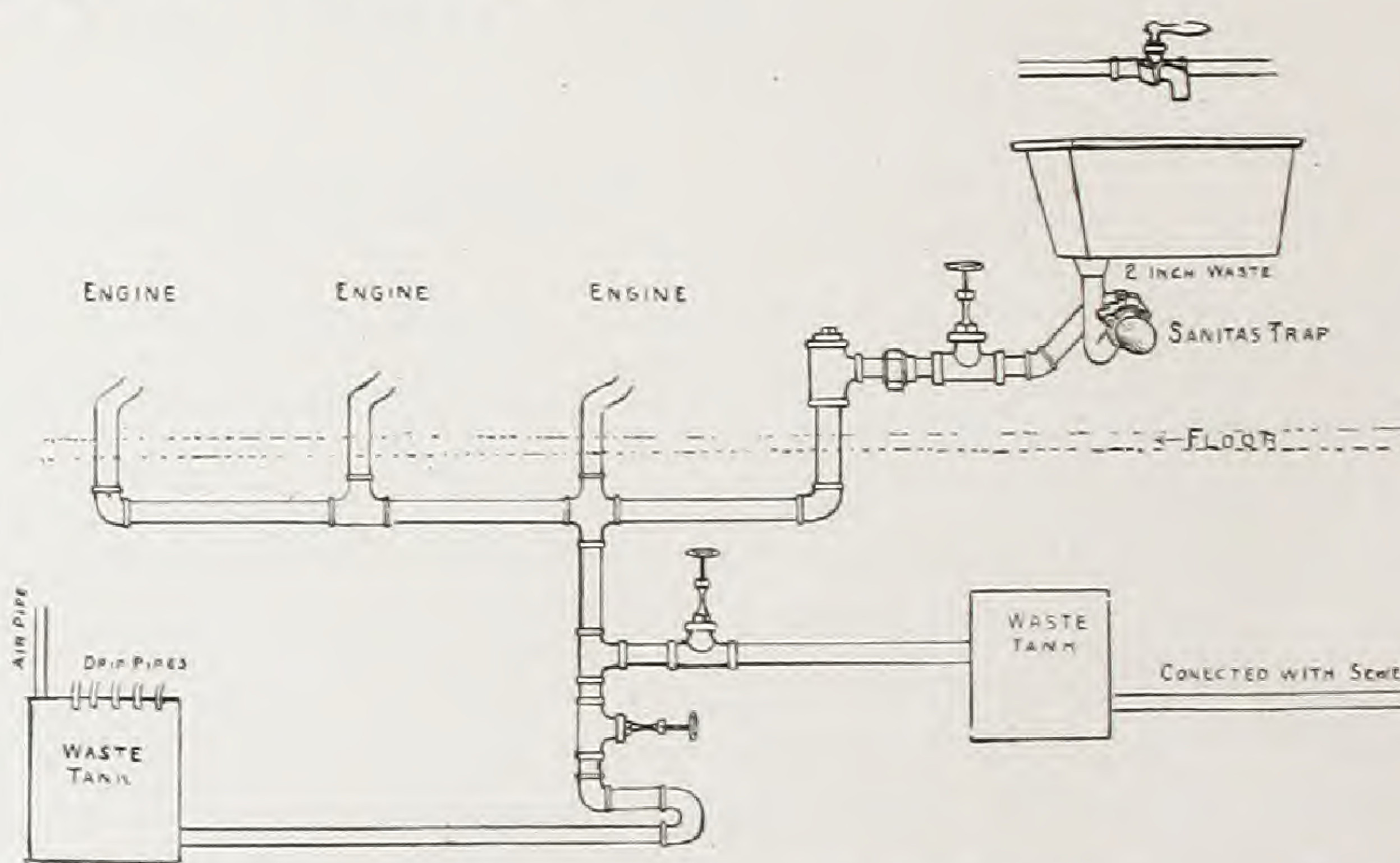
"In February of this year Mr. Putnam lectured before the Suffolk District Medical Society, on the 'Principles of Sanitary Plumbing,' and he exhibited before a large audience an exhaustive series of experiments with various apparatus. We extract the following remarks upon traps from the report appearing in the Boston 'Medical and Surgical Journal,' and all will, we think, appreciate the careful and thorough way in which its author has step by step proceeded in his endeavor to produce a self-cleansing and anti-siphonic trap."

The same journal, in a later issue, publishes a letter of D. J. Ebbetts, in which he writes: "Now there are several traps that may safely be used to defy the severest siphonage encountered in actual practice, but only one of these can claim to be self-cleansing—namely, Mr. Putnam's Sanitas Trap. This trap is extensively used in America. **It is the best example that we have at present of an anti-siphonic trap.**

"In America, where, partly on account of the severity of the winters, it is usual to fix the soil-pipes internally, and to connect all waste-pipes with the soil-pipes, it becomes generally necessary to ventilate the ordinary S trap, introducing a complication which is very bewildering to the ordinary plumber, and the adoption of which entails a considerable addition to the cost of the plumbing work. Besides this complication and expense, there are certain evils which are inseparable from such ventilation; so that in America, at any rate, where self-cleansing, anti-siphonic traps are to be obtained, it would appear to be rather unwise to continue the use of ventilated S traps.

### Two Extraordinary Tests.

**1st Test.** The cut on the right shows the Sanitas Trap as used in the main building of the Western Union Telegraph Company, Broadway, New York City. The trap is attached to a sink in the basement, and the waste runs into a pipe which is also used for an outlet for steam. The trap successfully resists the back pressure of the steam which runs into the pipe as shown in the cut. There is a steam pressure of from ten to twelve pounds, and the Sanitas is the only Trap which the engineer of the building could find that would withstand the steam pressure and at the same time be a security against siphonage.



**2d Test.** The claim that the Sanitas Trap unvented affords better protection against siphonage than the ordinary vented trap is conclusively shown by this test (further illustrated by the cut on the left). This cut illustrates an apparatus for testing the resistance of traps against siphonage. A tank of water is connected with the waste-pipe, so as to give a full discharge of water through it. This waste-pipe has a common S Trap on the right and a Sanitas Trap on the left, both connected in the same way as is usual for lead pipes to connect in upright soil pipe. The S. Trap has a ventilating pipe bent so that the turns in it are equivalent to the bends in actual practice. The Sanitas Trap is unvented. The test of the S Trap is made by corking the Sanitas Trap, and letting a discharge of water through the waste-pipe. The force of a single discharge is sufficient to destroy the seal of the S Trap by siphonage, although the vent pipe is only eight or ten feet long, with two or three bends. The unvented Sanitas Trap subjected to the same test, retains its seal under continued repetitions of the discharge. If the above traps are tested simultaneously, the unvented Sanitas Trap will lose but little water, while the vented S Trap will lose its seal altogether.



## Basin Attachments and Parts.

Sanitas Premier Basin and N. P. Fittings.....	\$12 00
Sanitas Valve Basin " " ".....	12 00
Sanitas 15 x 19 Oval Basin, with nickel-plated lift and overflow.....	12 00
Sanitas 15 x 19 Square Basin, with nickel-plated lift and overflow.....	15 00
Sanitas 16" Round Bowl, with nickel-plated lift and overflow.....	11 00
Sanitas 14" " " " " " " ".....	10 00
Sanitas 14" " " " " " " ".....	1 00

Add for embossing bowls.....

**Special prices for Decorated Basins on application.**

**Sanitas Bowls are only sold without fixtures when required to take the place of broken ones.**

## Price of Basins Only.

Sanitas Premier Basin.....	8 00
Sanitas Valve Basin.....	7 00
Sanitas Oval Recessed Basin, 15" x 19".....	5 50
Sanitas Round Basin, 16".....	4 50
Sanitas Round Basin, 14".....	3 50
Sanitas Square Basin, 15" x 19".....	8 50

## Sanitas Automatic Urinal Tanks and Fittings.

	PANELED.	PLAIN.
1 gal. Single Coupling.....	\$13 00	\$ 9 00
2 " " ".....	14 00	10 00
3 " " ".....	15 00	11 00
4 " " ".....	16 00	12 00
5 " " ".....	17 00	13 00
6 " " ".....	18 00	14 00

POLISHED OR N. P.

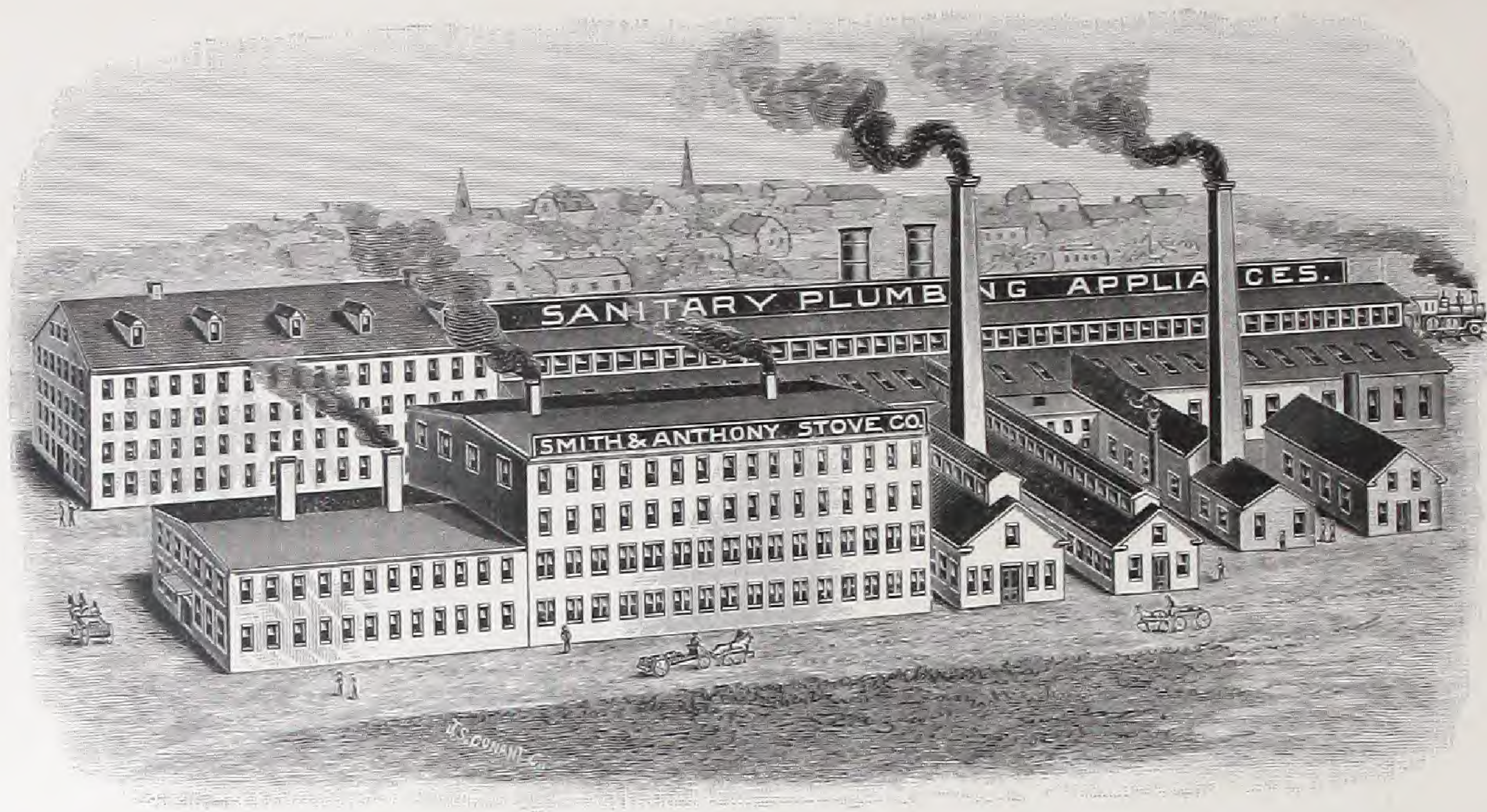
Add for Double Coupling, 1 1/4" x 7/8".....	\$1 25
" " " " 2" x 1 1/4".....	2 50
" " Triple " 1 1/4" x 7/8".....	1 50
" " " " 2" x 7/8".....	2 50
" " " " 2" x 1 1/4".....	3 25

## Sanitas Urinals, Cocks, Etc.

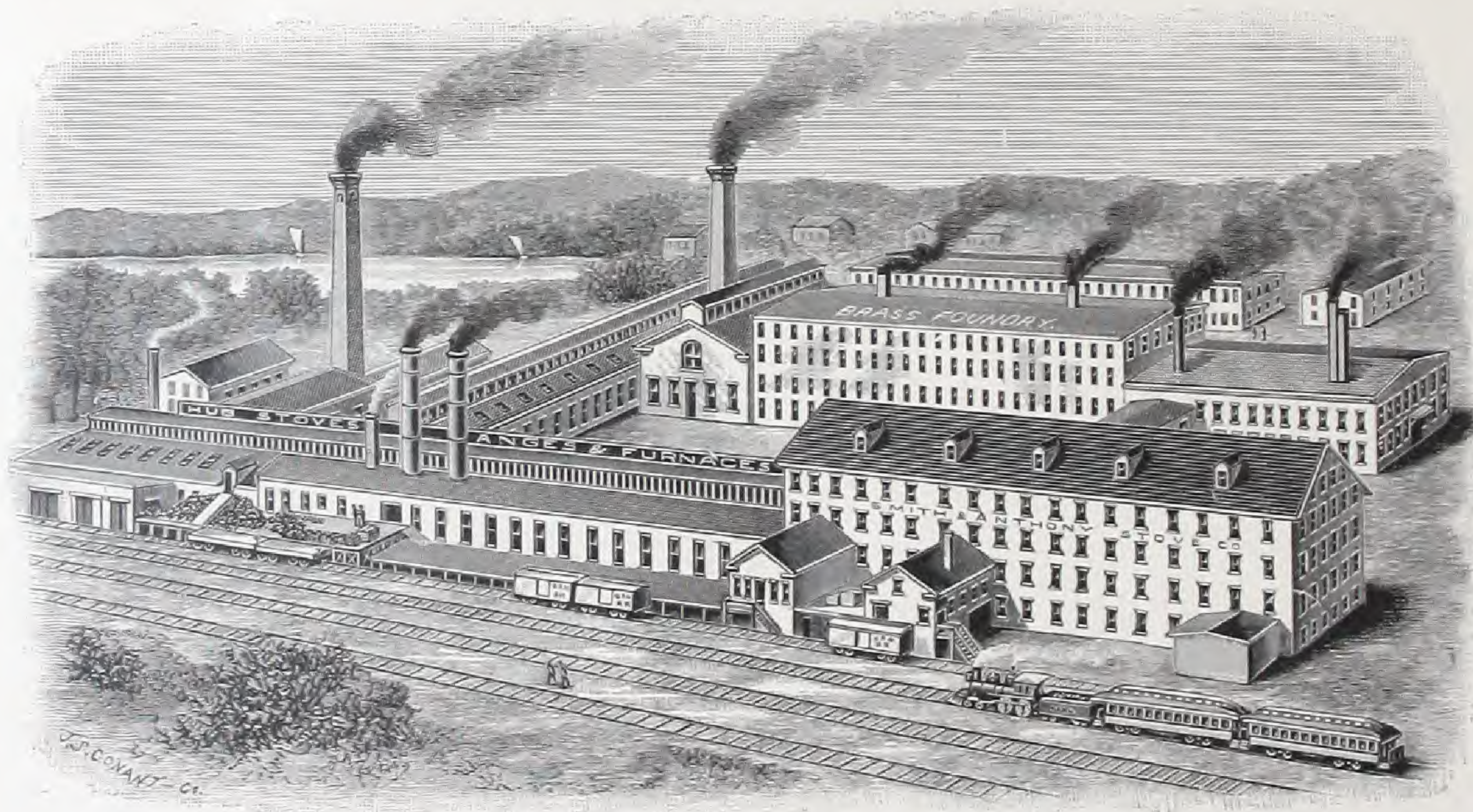
Sanitas Simplicity Urinal only.....	20 00
Sanitas Ventilating " ".....	12 00
N. P. Urinal Connection, with flange for wall supply for lead or iron pipe.....	2 00
N. P. Self-Closing Urinal Cock for Sanitas Urinal, for lead or iron pipe.....	3 50
N. P. Self-Closing Urinal Cock, with flange for wall, for lead or iron pipe.....	4 75
N. P. Urinal Wall Waste Connection, plate 172 C.....	3 50
N. P. Urinal Trap, with Vent Tee, " 170 C.....	6 00
N. P. Urinal Trap, " 170 C.....	5 00
Lead Urinal Trap, with N. P. cleanout " 172 C.....	3 00

**All brass work sent nickel-plated unless ordered otherwise.**





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